Getting Illinois Low-Income Seniors & People with Disabilities Online

Abstract

This report is a 12-month summative evaluation conducted by Northern Illinois University of a demonstration project to promote regular and sustained computer Internet use by the elderly and people with disabilities. The project, Getting Illinois Low Income Seniors and People with Disabilities Online, is funded by the National Telecommunications and Information Administration (NTIA) through their Broadband Technology Opportunities Program (BTOP). Approximately 3,000 low-income seniors and people with disabilities in and around 23 public and subsidized housing facilities in northern Illinois were the focus of the project.

Connected Living, Inc., served as the grant recipient and project administrator. Connected Living's proprietary Internet portal and computer training process, both designed specifically for seniors and people with physical limitations, were the primary programmatic components. DSSA Strategies, Inc., coordinated the market research, evaluation, and information dissemination activities for the project. The Illinois Senior Internet Adoption Coalition, a group of 14 public housing authorities and non-profit and for-profit building owners, represented the 23 participating buildings.

Residents of the 23 participating buildings and from the larger community were recruited to the program through a variety of awareness-raising activities. Participants' skill levels were assessed and they were placed in the appropriate 12-week training program. Upon completing that program and demonstrating their proficiency, participants received a free computer and Internet connectivity. Sustained Internet use was encouraged through individualized Internet Discovery Plans and various social activities. A trained Community Program Manager was hired to implement and coordinate the project in each building and to conduct neighborhood outreach.

After 12 months of project implementation the following had occurred:

- All 23 project buildings had completed at least two 12-week training sessions with 25 buildings having offered three or four rounds of training.
- 2,093 people had graduated from the program including 1,143 building residents and 950 people from the outreach program.
- Subsidized or refurbished computers had been issued to 1,741 or 83.2 percent of the training graduates.
- 907 building residents and 569 outreach participants had become broadband subscribers. This represents 70.5 percent of the program graduates.
- Program graduates' computer skills showed a 36.7 percent improvement at 6-month follow-up. Interest in economically-focused web-based applications, such as looking for a job, starting a business, and pursuing online education, increased significantly.
- Contacts by program graduates with friends and relatives increased measurably in the 6-month period immediately following graduation.

A third combined formative and summative evaluation report will be produced at the conclusion of the 18-month project.

A Demonstration Project

Funded by the

U.S. Department of Commerce

National Telecommunications and Information Administration

Twelve Month Evaluation Findings

Evaluation Funded by DSSA Strategies, Inc.

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February 17, 2012

Acknowledgements

We are indebted to countless people and organizations for their assistance over the duration of this evaluation. Don Samuelson has provided thoughtful counsel and leadership throughout the project. We thank Andrew Lowenstein and Gina Baxter at Connected Living for their cooperation, patience, and professionalism, and the many Connected Living senior managers, Community Program Managers, and Ambassadors for their help and insight. We are grateful to the many program participants for their candid responses to our questions and questionnaires. We thank members of the Health Services Research Group and especially Deb Gory and Dan Focosi for their contributions. Thanks also to Renée Prejean-Motanky, RPM Marketing, for design and layout.

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Report Summary

This report is the second in a series of three evaluation reports prepared by Northern Illinois University of a federally-funded demonstration project to promote sustained computer Internet use by the elderly and people with disabilities. This report presents summative findings at the 12-month point in the project. The project being evaluated is "Getting Illinois Low Income Seniors and People with Disabilities Online ("the project"). It is funded by the National Telecommunications and Information Administration (NTIA) through their Broadband Technology Opportunities Program (BTOP). Connected Living, Inc., a Massachusetts-based company that provides technology adoption programs for seniors, is the BTOP grant recipient and project administrator. The other partner is DSSA Strategies, Inc., co-author of the grant proposal and coordinator of the project's market research, evaluation, and information dissemination activities.

The main goal of the project is to engage approximately 3,000 low-income seniors and people with disabilities in regular and sustained computer and Internet use. These individuals reside in and around 23 public housing facilities and subsidized housing buildings located in northern Illinois.

The Connected Living Adoption and Sustainability Program (CLASP) is the computer and Internet adoption model used by Connected Living for the project. A fundamental premise of CLASP is that Internet adoption is a process, not an event. Consequently, CLASP consists of seven steps that begin with awareness-raising and conclude with activities that encourage participants to subscribe to the Internet. A subsidized computer and Internet connectivity is offered as an incentive to residents to enroll in and complete basic computer and Internet training.

This summative evaluation report reflects information and findings for the period June 30, 2011 through December 31, 2012. A third and final report will be developed after the 18-month project has concluded. The final report will combine the formative and summative components of the evaluation along with final commentary.

Following is a summary of the 12-month project outcomes, findings, and recommendations. Additional information and analysis of each of these items is provided in the body of the report.

Key 12-Month Project Outcomes

1. All 23 project buildings completed the first and second round of 12-week training sessions. Nineteen buildings had completed three rounds and 6 had completed 6 rounds of training.

2. A total of 2,093 people had graduated from the program: 1,143 building residents and 950 people from the outreach program.

3. Connected Living is successfully transitioning the training activities to a self-sustaining volunteer-based program.

4. The number of outreach participants who attended CLASP activities increased from 1,986 to 3,168 between July 31, 2011 and December 31, 2011.

5. Subsidized or refurbished computers had been issued to 1,741 program participants.

6. A total of 907 building residents and 569 outreach participants had become broadband subscribers.

7. Program graduates' computer skills showed a 36.7 percent improvement at 6-month follow-up.

8. Building residents and neighborhood outreach participants displayed significant increases in interest in the more economically-focused web-based applications including looking for a job, starting a business, and pursuing online education.

9. Program graduates social contacts increased significantly in the 6-month period immediately following graduation.

12-Month Summative Findings and Recommendations

Finding 1: Connected Living continued to actively promote the project in the time elapsed since the first evaluation report.

Finding 2: The effects of promotional activities among building residents have diminished with the age of the project suggesting that the demand for the training has been fully met among building residents.

Finding 3: As responses to awareness raising events and enrollment in the training program among building residents has diminished, responses from neighborhood outreach have increased. Most gains in enrollment since the first evaluation report are from neighborhood outreach activities.

Finding 4: A total of 1,184 people, or 42 percent of all building residents, successfully completed the program.

Finding 5: The graduation rate varied considerably by building and ranged from 20 percent to 79 percent. With a few notable exceptions, graduation rates were higher in smaller buildings.

Finding 6: A total of 32 percent of building residents reported themselves as broadband subscribers.

Finding 7: Broadband subscription rates varied considerably by building with a high of 63 percent and a low of zero.

Finding 8: Each of the program buildings had a dedicated CPM for between 8 and 12 months.

Finding 9: Connected Living had almost completely transitioned the day-to-day project activities to volunteers who have been trained and put in place in the project buildings.

Finding 10: Project leadership was being consolidated into a small team of regional CPMs who have responsibility for project activities in clusters of buildings.

Finding 11: Connected Living improved the level of recruitment and participation in neighborhood outreach by over 300 percent between July 31, 2011 and December 31, 2011.

Finding 12: Connected Living trained a total of 641 people through neighborhood outreach efforts, 368 (57.4 percent) of whom are confirmed broadband subscribers.

Finding 13: Connected Living had developed and implemented a program of external outreach to deliver CLASP components in settings outside of the 23 project buildings.

Finding 14: As of December 31, 2011, Connected Living had trained 309 people through their external outreach efforts, 201 (65.1percent) of whom were confirmed broadband subscribers.

Finding 15: Of the building residents who enrolled in the training program, 86.8 percent had experience using computers, 82.8 percent had experience using the Internet, 35.3 percent had a computer at home, and 50.8 percent had Internet access.

Finding 16: Cost was the most commonly expressed barrier to computer and Internet access among building residents who enrolled in the training program.

Finding 17: Program participants indicated large gains in computer and Internet skill level resulting from the training program. The skill gains were particularly large in the more advanced skills.

Finding 18: The training program increased participants' interest in a wide range of Internet applications, particularly applications that offer convenience.

Finding 19: Changes in the more economically-focused web-based applications revealed a substantial increase in interest in looking for a job, starting a business, and pursuing online education. These new-found economic interests warrant further follow-up to determine whether residents actually acted upon them.

Finding 20: Program participants' level of social participation increased after completing the training program.

Finding 21: Building residents who are 60 years old and older were more likely to own computers and less likely to have Internet access than the general population of building residents. This is because the seniors were more likely to own Internet enabled computers and less likely to access the Internet via smart phones.

Finding 22: Building residents who are 60 years of age and older were less likely to report that they learned to use computers and the Internet on their own. They were more likely to report learning computer and Internet skills in formal settings.

Finding 23: Buildings residents who are 60 years of age and older were as likely to show computer and Internet skill improvements as the general building population, but the seniors are far less likely to report that they can teach the skills.

Finding 24: Building residents who are 60 years and older displayed significant increases in interest in the more economically-focused web-based applications including looking for a job, starting a business, and pursuing online education.

Finding 25: Of the neighborhood outreach participants in the training program, 89.6 percent had experience using computers, 85.8 percent had experience using the Internet, 43.1 percent had a computer at home, and 41.2 percent had Internet access.

Finding 26: Cost was the most commonly expressed barrier to computer and Internet access among neighborhood outreach participants who enrolled in the training program.

Finding 27: Neighborhood outreach participants indicated large gains in computer and Internet skill level resulting from the training program. The skill gains were particularly large for more advanced skills.

Finding 28: Neighborhood outreach participants expressed greatly increased interest in Internet applications, particularly applications that make it possible to get or keep a job and to start a business. The training program increased participants' interest in a wide range of Internet applications.

Finding 29: Neighborhood outreach participants' level of social participation increased after completing the training program.

Recommendation 1: Connected Living should clarify the plans they have in place to encourage building residents to sign up for a paid broadband subscription when BTOP funded broadband ends.

Recommendation 2: Connected Living should formalize and systematize all activities related to transitioning the project from CPM-led to volunteer-led activities. These includes policies on the selection, training, and oversight of the volunteer program and its long-term sustainability.

Project Description

This report is a 12-month evaluation of a federally-funded demonstration project in northern Illinois that is intended to promote sustained computer internet use by the elderly and people with disabilities. The project being evaluated is "Getting Illinois Low Income Seniors and People with Disabilities Online ("the project"). It is funded by the National Telecommunications and Information Administration (NTIA) through their Broadband Technology Opportunities Program (BTOP) with American Recovery and Reinvestment Act (ARRA) funds.[1] BTOP's public policy objective is to increase broadband Internet usage and adoption, especially for vulnerable populations where broadband technology traditionally has been underutilized. Many of these projects include digital literacy training and outreach campaigns to increase the usefulness of broadband in people's everyday lives.

The main goal of the project is to engage approximately 3,000 low-income seniors and people with disabilities in regular and sustained computer and Internet use. These individuals reside in or around 23 public housing facilities and subsidized housing buildings located throughout northern Illinois. A second goal is to create at least 100 jobs. A third project goal is to identify promising practices for dissemination and potential adoption or adaption by other states, regions, or communities.

The Connected Living Adoption and Sustainability Program (CLASP) is the computer and Internet adoption model used by Connected Living for the project. A fundamental premise of CLASP is that Internet adoption is a process, not an event. Consequently, CLASP is a continuum consisting of seven steps that begins with awareness-raising and concludes with activities that encourage participants to subscribe to the Internet. Other features of CLASP are that it is individual-centered, relationship-based, and uses the personal interests of participants to engage them in using the Internet. A free computer is offered to individuals as an incentive to enroll in and complete the computer and Internet training.

Another key project component is the Illinois Senior Internet Adoption Coalition ("the Coalition"), an entity formed for this project by DSSA. The Coalition consists of 14 organizations, mostly local public housing authorities, which own or manage the 23 northern Illinois buildings participating in the project. They are located in Rock Island, Moline, Henry County, Rockford, DeKalb, Grundy County, Joliet, Oak Park, Kankakee, and Chicago.

[1] The American Recovery and Reinvestment Act (ARRA) of 2009 provided the United States Department of Commerce, National Telecommunications and Information Administration (NTIA) and the U.S. Department of Agriculture's Rural Utilities Service (RUS) with $7.2 billion to expand access to broadband services throughout the country. Of those funds, ARRA authorized $4.7 billion to NTIA to support the deployment of broadband infrastructure, enhance and expand public computer centers, encourage sustainable adoption of broadband service, and develop and maintain a nationwide public map of broadband service capability and availability.

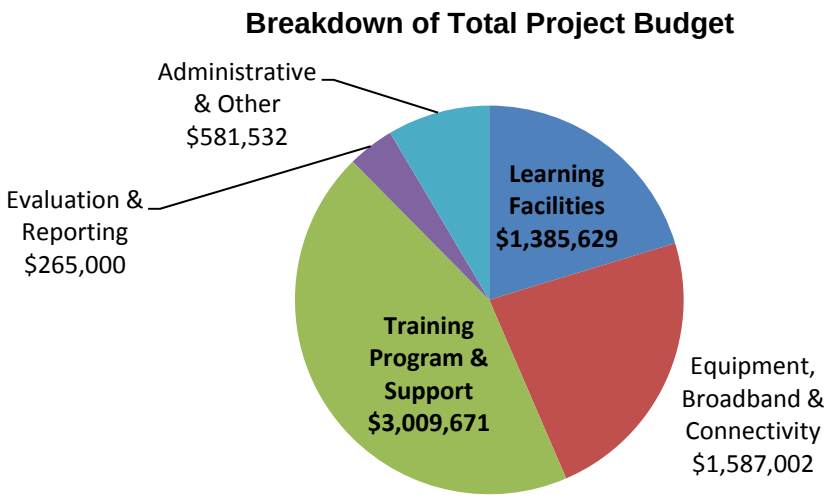
Funding

Funding

The budget for this project was $6,828,835, of which $1,206,550 was provided by the Illinois Department of Commerce and Economic Opportunity. Additional funding has been provided by the Illinois Senior Internet Adoption Coalition, which contributed $764,709, and by Connected Living, which contributed $126,134 in matching funds. Funds have been allocated for five program components (see Figure 1):

- Learning Facilities - $1,385,629
- Equipment, Broadband Access and Connectivity - $1,587,002
- Training Program and Support - $3,009,671
- Evaluation and Reporting - $265,000
- Administration and other - $581,532

Figure 1



Partners

Three partners are responsible for implementing the project. A description of each partner and their primary responsibilities is provided below.

Connected Living.

The project applicant and grant recipient is Connected Living, Inc. Their core business is to provide technology adoption programs for seniors. The company, formerly known as MyWay Village Inc., was founded in 2007 and is based in Quincy, Massachusetts. Connected Living operates on a social entrepreneurship model.

At the time of the project application, Connected Living had experience operating on-site Internet training programs for seniors in assisted living facilities in Massachusetts and at 10 Brookdale Senior Living, Inc. locations in the Chicago area. Specifically, Connected Living's experience involved setting up on-site computer learning centers in retirement communities and providing recruiting and training of on-site program managers to deliver essential computer training services designed specifically for seniors. Connected Living also brought to the project two key technological resources: a proprietary Internet portal designed for use by seniors and people with physical limitations, the Connected Living Internet Portal (CLIP); and a comprehensive computer training process and curriculum called the Connected Living Adoption and Sustainability Program (CLASP).

The CLIP portal enables users to develop foundational computer and Internet skills, taking into consideration common problems that seniors and people with disabilities encounter including visual and dexterity limitations. Some of the key features of CLIP are access to the Internet, email, photo sharing, social networking, health care applications, diaries, and a customized calendar. The CLIP portal is the computer application at the heart of the CLASP training.

DSSA Strategies, Inc.

While Connected Living is the project grant recipient, the vision and impetus for the project was provided by Don S. Samuelson, the principal of DSSA Strategies, Inc. ("DSSA"). DSSA has worked closely with Illinois state finance agencies, the U.S Department of Housing and Urban Development (HUD), and public housing authorities across Illinois and the Midwest. DSSA has managed both subsidized housing and on-site computer learning centers for residents of government-assisted housing and other residential facilities for seniors. DSSA used a combination of new and used computers, local area networks, Internet connections, and its own staff and volunteers to provide Internet and computer education and training services to DSSA's public and Section 8 housing clients. Where Connected Living developed its service model in the for-profit senior living industry, DSSA gained experience in providing similar services to low-income seniors in publicly-assisted housing.

Illinois Senior Internet Adoption Coalition.

In late 2009, DSSA and Connected Living proposed the Getting Illinois Low Income Seniors and People with Disabilities Online demonstration project. As part of this project, DSSA formed the Illinois Senior Internet Adoption Coalition. The Coalition is composed of 14 diverse organizations that own or manage 23 buildings throughout northern Illinois. Nine of the partners are public housing authorities and five are non-profit and for-profit building owners operating with HUD Section 8 subsidies. They are located in the city of Chicago, the Cook County suburbs, and in several small cities in the collar counties of Chicago like Kankakee and Joliet. Some facilities are in small towns in rural counties such as Morris in Grundy County, DeKalb in DeKalb County, and Kewanee in Henry County. Several are from metro areas like Rockford in north central Illinois and Rock Island in far northwestern Illinois.

Each Coalition organization is a sub-recipient of the grant. They were selected to participate in the project because the residents of their facilities displayed the demographic characteristics of groups least likely to use computers and the Internet: low-income people who are elderly, who have disabilities, or both. The Coalition partners participated in the BTOP application process by generating local support for the project. Their role in the project is to actively support the Connected Living staff, assist with building and community events, help identify and recruit program participants, participate in community outreach efforts, and generally promote the project. The Coalition partners will also play a key role in the long-term sustainability of the project by assuming responsibility for the effort after federal funding ends in June 2012.

Table 1, on the next page, summarizes key characteristics of the Coalition organizations and 23 participating buildings.

Table 1
Illinois Senior Internet Adoption Coalition

Building	Residents	Sponsor	City	Census Tract	Est. Pop. In CT
Adlai Stevenson	182	Housing Authority of Joliet	Joliet	215	5,434
Azzerelli Tower	96	Kankakee County Housing Authority	Kankakee	117	3,417
Bethel New Life	167	Bethel New Life	Chicago	2511	5,669
Bridgeport	86	Senior Lifestyle	Chicago	6008	4,257
Churchview	84	BMA Management, Inc.	Chicago	2520	6,575
Elois McCoy	62	Habilitative Systems, Inc.	Chicago	2522	8,969
Golden Years	150	Housing Authority of DeKalb	DeKalb	13	5,582
Hillside Heights	122	Moline Housing Authority	Moline	217	3,991
Hollis House	49	Housing Authority of Henry County	Kewanee	310	3,594
John F. Kennedy	182	Housing Authority of Joliet	Joliet	8828	--
Mazon Park Tower	24	Grundy County Housing Authority	Mazon	4	3,545
Midtown Tower	97	Kankakee County Housing Authority	Kankakee	123	5,576
Mills Park Tower	195	Oak Park Housing Authority	Oak Park	8126	5,358
North Main	170	Rockford Housing Authority	Rockford	29	1,708
Olesen Plaza	140	Rockford Housing Authority	Rockford	29	--
Park Terrace	161	Rockford Housing Authority	Rockford	8	3,247
Sankofa House	59	Sankofa Safe Child Initiative	Chicago	2909	4,519
Saratoga Tower	97	Grundy County Housing Authority	Morris	6	2,773
Spencer Tower	207	Rock Island Housing Authority	Rock Island	226	1,968
Spring Valley	185	Moline Housing Authority	Moline	215	4,277
Sunset Heights	173	Rock Island Housing Authority	Rock Island	244	1,955
The Oaks	75	Oak Park Housing Authority	Oak Park	8126	3,753
Washington	72	Housing Authority of Henry County	Kewanee	308	3,322
Total	**2,835**				**89,489**

Community Outreach Program and Partners.

Connected Living's BTOP grant application proposed a program of community outreach. Once the initial objectives of establishing CLCs in the buildings and initiating CLASP with the residents of the buildings was met, the project buildings were to serve as "hubs" or "anchor institutions" to encourage people living in the immediate neighborhood to participate in the program. Outreach was also intended to promote local collaboration among the buildings and service providers - using the leverage of broadband and Internet skills being built and established in the buildings - who can share experiences within the networks of other low-income housing providers. Additionally, the grant described involving to the extent possible local Area Agencies on Aging and related service providers in outreach efforts engaging the people they serve and helping to perpetuate the computer training and learning. The application emphasized outreach activities in the buildings' census tracts and identified the 89,489 people living therein as a potential market for the program.[2]

Connected Living differentiates between *neighborhood* outreach and *external* outreach. Neighborhood outreach involves inviting people living near the project buildings to participate in CLASP activities, including computer training. External outreach extends CLASP to area community-based organizations that are in the immediate vicinity of the buildings or in nearby neighborhoods. Table 2 identifies external outreach partner organizations and programs with which Connected Living has worked to adapt CLASP to address their clients' needs.

[2] NTIA SBA Application Number 4561, the Getting Illinois Low Income Seniors and People with Disabilities Online Demonstration Project. Section C., Page 21. 2010.

Table 2
External Outreach Partners

Partner	Address	City	Congressional District
Pioneer Gardens	3800 King Street	Chicago	1
Sunshine Ministries	500 E. 61st Street	Chicago	1
Abbot Park	49 East 95th Street 60619	Chicago	1
AKARAMA	6220 S. Ingleside Avenue	Chicago	1
Apostolic Church of Chicago	6320 S. Dorchester	Chicago	1
Harvey Community Center	226 W. Jackson	Chicago	1
Shiloh Church	7000 S. Michigan Avenue	Chicago	1
Rush Generations (Rush UMC)	710 South Paulina	Chicago	7
Fifth City Chicago	3350 W Jackson Blvd	Chicago	7
Strategic Human Services	1211 S Western Ave # 203	Chicago	7
United for Better Living	4540 W. Washington Blvd.	Chicago	7
West Town	1819 W. Chicago Ave	Chicago	7
Kankakee County Community Service	657 E. Court Street	Kankakee	11
Joliet Salvation Army	300 third Avenue	Joliet	11
Oswego Senior Center	156 E. Washington Street	Oswego	14
Lee County Senior Center	100 West 2nd Street	Dixon	14
Civic Apartments	350 Grant Street	Sycamore	14
Faust Landmark	630 E. State Street	Rockford	16
Booker Washington Community Center	524 Kent Street	Rockford	16
Literacy Council	982 North Main Street	Rockford	16
Brewington Oaks	223 S. Winnebago Street	Rockford	16
Casa Guanajuato	525 16th Street	Moline	17
Church of Pace Community Caring Conference	1114 12th Street	R. Island	17
Western Illinois Area on Aging	729 34th Avenue	R. Island	17
Broadway Presbyterian Church	710 23rd Street	R. Island	17
Project NOW	711 4th Avenue	Moline	17

Connected Living Adoption and Sustainability Program

The Connected Living Adoption and Sustainability Program (CLASP) is the computer and Internet adoption model used for the project. Connected Living developed CLASP through several demonstration projects carried out in 2009-2010 and adapted the model to the population targeted through the Illinois BTOP project. A fundamental premise of CLASP is that Internet adoption is a process, not an event.[3] Consequently, CLASP is a continuum consisting of seven steps:

1. *Awareness-Raising*
   About one month prior to the project launch a series of awareness-raising activities is conducted to encourage residents to enroll in the project. Activities include meetings with various building personnel and the Resident Council, filling out resident baseline surveys, conducting "Town Hall" events, sending out informational mailings, posting flyers, and organizing a party to officially open the computer learning center.

2. *Assessment of Beginning Skills and Capabilities*
   Each resident choosing to participate in the computer training is assigned to a project staff member to establish rapport and develop an understanding of the participant's computer and Internet-related interests. The individual's skill level is assessed and he or she is assigned to a beginner, intermediate, or advanced training program.

3. *Computer and Internet Training*
   The computer and Internet skills training in the CLASP program is provided to participants in hands-on group sessions. Training is delivered in one-hour sessions over the course of 12 weeks. Written lessons begin with very basic computer skills and build up to higher level skills.

4. *Assessment of the Training*
   Participants are asked to demonstrate their proficiency in each of the associated computer and Internet skills after completing a level of training. If any of the skills have not been mastered, a new training plan is developed to address deficiencies. After the participant passes a skill assessment they receive a free computer and Internet connectivity.

5. *Personalized Internet Use Plans*
   After project participants have received their new computers, the CPMs meet with them individually to discuss ongoing computer use and to develop a personalized "Internet Discovery Plan." Discovery plans are based on each participant's interests and motivations for using the Internet. They identify specific web-based applications and

[3] Samuelson, DS & Lowenstein A. (2010) Reflections on 'Sustainable Adoption' for Round 2 of Broadband Stimulus.*BroadbandBreakfast.com* (http://broadbandbreakfast.com). Accessed 02-23-2012.

Internet sites for the participant to pursue on their own with support from the building CPM and the Connected Living Help Desk.

6. *Integrate Internet Use into Daily Life*
   Activities are scheduled to encourage the development of a broader culture of computer and Internet use in the buildings served by the project. These include regular discussion groups in common areas of the buildings, open labs, Friday Family Nights, and various Internet-related activities and games. Residents not participating in the project are encouraged to attend to stimulate their interest in computer and Internet training.

7. *Encourage Internet Subscription*
   Ensuring that participants have the skills to use the computer and Internet, providing them with a free computer and Internet connectivity, and fostering a broader culture of computer and Internet utilization are intended to demonstrate the ongoing value of the Internet to project participants.

Evaluation Design

The effectiveness of the project in attaining its goals and objectives is being evaluated by Northern Illinois University through a subcontract with DSSA. This evaluation report is the second of three and covers the period July 1, 2011 through December 31, 2011. A third combined formative and summative report will be produced at the conclusion of the 18-month project. The final report will include a number of technical appendices and supporting documentation.

Six questions are being used to guide the evaluation of the project:

1. What essential program elements contributed to the success or failure of the project during various phases of implementation?
2. What factors influenced participation and non-participation in the project?
3. What effects does the project have on computer and Internet utilization of program participants?
4. What effects does the project have on the knowledge, skills and attitudes related to computer and Internet use of program participants?
5. What effects does the project have on the financial, health, social and civic well-being of program participants?
6. What effect does the project have on program participants' adoption and sustained use of the Internet?

The first formative evaluation report covering the period January 1 – June 30, 2011, focused on the first three questions. This 12-month report focuses on questions 3-6. Seven data collection methods were used for this12-month evaluation.

1. A two-page "Resident Info Sheet" baseline survey of resident characteristics was developed by Connected Living and administered to the residents in the 23 buildings participating in the project. As of December 31, 2011, 1,502 surveys had been collected.
2. A seven-page resident survey for project participants was developed by NIU to assess additional baseline computer and Internet usage characteristics. This survey was administered by the CPMs during project orientations as a pre-test measure and emailed to program participants approximately six months after they completed the program as a post-test measure. A total of 533 baseline pre-test surveys were collected by CPMs at the beginning of training and a total of 121 post-test surveys were returned by participants six months after they completed their training.
3. Semi-structured telephone interviews were conducted with CPMs, Regional CPMs, and Connected Living managers and other project staff.
4. A limited set of on-site interviews were conducted with CPMs, ambassadors, volunteers, and building residents.
5. A content review was conducted of program documents and over 50 pages of Connected Living corporate policies and procedures, and project operating indicators.
6. Field notes made during various field observations were analyzed using standard content analysis techniques to identify common themes, issues, and opportunities.
7. A brief email survey was administered to eight CPMs and regional CPMs.

12-Month Findings and Recommendations

Overall Project Implementation Activities

The major program activities that took place since July 31, 2011 fell into three categories. First, Connected Living offered the final rounds of project-sponsored awareness raising, recruitment, and training in the 23 buildings and began transitioning control of the program to the Coalition members and associated volunteers. Connected Living continued to promote the program in the manner begun in November 2010 through publicity, awareness raising events, and enrolling participants in the third and fourth cohorts of training. In order to facilitate this process, the remaining CPMs were trained to function as regional CPMs with the responsibility of overseeing geographic groupings of buildings.

The second set of program activities were Connected Living's intensified efforts to recruit people into the program from the neighborhoods surrounding the buildings. The number of publicity events and advertisements aimed at bolstering the neighborhood outreach efforts were increased greatly.

A third set of activities focused on the development and implementation of a program of external outreach. External outreach offers selected components of CLASP to community-based organizations regardless of their proximity to the 23 project buildings. Connected Living facilitates the delivery of CLASP or the essential components of CLASP to the people the organizations and programs serve.

Formative Findings

Project Implementation.

Table 3 summarizes important project implementation statistics by quarter starting with the beginning of the program in October 2010 (quarter one) through the end of December 2011 (quarter five). The results are presented cumulatively from left to right. Connected Living has maintained this comprehensive database since the project began and has made this information readily accessible to the evaluation team.

Connected Living statistics indicated that project-wide, CPMs and other project staff issued 138,646 unique or unduplicated personal invitations to attend pre-launch and other awareness raising events. Company efforts with various news and media-based promotional efforts (public announcements, press releases, etc.) reached an estimated 849,745 people in the communities surrounding the 23 project buildings. Connected Living developed and the CPMs displayed and distributed flyers and other printed materials in prominent locations and directly to building residents. Interviews with building residents indicated that these promotional materials were highly identifiable and ubiquitous in the buildings. Over 130,000 of them have been distributed over the life of the program. The evaluation team has seen multiple versions of promotional material in all of the buildings they have visited.

Table 3
Project Implementation Milestones

Program Activity	Quarter One	Quarter Two	Quarter Three	Quarter Four	Quarter Five
	Ending 12-10	*Ending 3-11*	*Ending 6-11*	*Ending 9-11*	*Ending 12-11*
Awareness Raising					
Building Marketing-Personal Invitations	1,034	12,609	54,939	111,697	138,646
Outreach Programs-News/Media	0	453,500	641,797	835,745	849,745
Awareness Programs for Outreach	0	718	988	1,164	1,228
High Level Outreach by BTOP Leadership, Collaborators	0	661	1,126	1,312	1,542
Total	**1,034**	**467,488**	**698,850**	**949,918**	**991,161**
Response to Awareness Raising					
Unique Attendance to Programs from Buildings	481	1,173	1,436	1,631	1,732
Unique Attendance to Programs from Neighborhood	74	563	907	1,380	1,450
Total	**555**	**1,736**	**2,343**	**3,011**	**3,182**
Assessments of Interest and Skills					
Resident Info Sheet (2-page)	313	989	1,572	1,656	1,741
Outreach Info Sheet (2-page)	9	9	380	865	1,085
Total	**322**	**998**	**1,952**	**2,521**	**2,826**
Participants in CLC Programs					
From Building Residents	446	1,050	1,405	1,603	1,727
From Neighborhood Residents	10	161	581	939	1,441
Total	**456**	**1,211**	**1,986**	**2,542**	**3,168**
Certificate of Completion					
Building Residents	0	208	613	940	1,189
Neighborhood Residents	0	19	237	537	947
Total	**0**	**227**	**850**	**1,477**	**2,136**
Computers					
Subsidized Computers	0	191	638	940	1,189
Refurbished Computers	0	10	142	325	552
Total	**0**	**201**	**780**	**1,265**	**1,741**

Source: Connected Living Quarterly Report Template (12-31-11).

Building Resident Outcomes.

Connected Living hosted 3,182 individuals from the buildings and surrounding communities at such CLASP events as family fun nights and discussion groups. According to Connected Living, 3,000 people visited the 23 building CLCs for open house and bring-a-friend events. Connected Living sponsored a recruitment incentive program for building residents who encouraged friends, relatives, neighbors and others to enroll in the program by offering technology-based give-aways such as printers, ink cartridges, printer paper, flash memory drives computer peripherals, etc.

Connected Living emphasized recruiting and enrolling building residents in the early phase of the project. A total of 1,654 or 95.5 percent of the 1,732 who attended awareness raising events did so by the end of March 2011, and similarly a total of 1,496 people or 85.9 percent of the 1,727 people who attended events in the CLC did so in that timeframe. On the other hand, neighborhood outreach picked up pace swiftly between quarter three and quarter four when responses to awareness raising events and attendance in building CLCs from people in the neighborhood made the largest inter-quarter gains of 65.7 and 61.8 percent respectively.

The awareness raising events and the response to those events shown in Table 3 immediately preceded participant enrollment in the program, and as the results of the awareness raising events tapered off over time, so did program graduations. This suggests that the demand for the training has been fully met among building residents.

By the end of December 2011, 2,136 people had graduated from the program (1,189 building residents and 947 outreach participants) and had been issued subsidized computers (1,189 to building residents) or refurbished computers (552 to neighborhood outreach graduates).

Finding 1: Connected Living continued to actively promote the project in the time elapsed since the first evaluation report.

Finding 2: The effects of promotional activities among building residents have diminished with the age of the project suggesting that the demand for the training has been fully met among building residents.

Finding 3: As responses to awareness raising events and enrollment in the program among building residents diminished, responses from neighborhood outreach increased. Most gains in enrollment since the first evaluation report are from neighborhood outreach activities.

Table 4 summarizes key project outcomes by building. Connected Living has held four 12-week computer training sessions. By December 31, 2011, 20 of the 23 project buildings completed their third session and six buildings finished their fourth session. Of the 2,835 building residents, 1,184 graduated; and while people were enrolled in session four at the writing of this report, the year-end figures totaled to 42 percent of building residents. The number and proportion of building residents enrolling has diminished over the successive training sessions. The most enrollments occurred while the CPMs were active in the buildings early in the program.

Table 4
Graduation Rates by Building

Building	Number of Adult Residents	Graduates				Total Graduated	Percent of Building Residents Graduated	Percent Building Residents Broadband Subscribers
		Session One	Session Two	Session Three[1]	Session Four			
Adlai Stevenson	182	47	52	3	--	102	56	30
Azzerelli Tower	96	34	14	Jan.	--	48	50	47
Bethel New Life	167	26	5	8	--	39	23	17
Bridgeport	86	19	18	4	--	41	48	19
Churchview	84	10	3	4	--	17	20	0
Elois McCoy	62	7	11	--	--	18	29	31
Golden Years	150	48	12	10	--	70	47	35
Hillside Heights	122	39	15	4	8	66	54	0
Hollis House	49	20	3	1	--	24	49	47
John F. Kennedy	182	34	19	5	11	69	38	35
Mazon Park Tower	24	14	2	Jan.	--	16	66	58
Midtown Tower	97	28	15	5	--	48	49	53
Mills Park Tower	195	54	30	Mar.	--	84	43	31
North Main	170	35	3	10	1	49	29	22
Olesen Plaza	140	26	6	3	--	35	25	14
Park Terrace	161	31	11	4	4	50	31	24
Sankofa House	59	18	5	9	--	32	54	63
Saratoga Tower	97	33	14	6	--	53	55	53
Spencer Tower	207	34	22	32	1	89	43	35
Spring Valley	185	33	9	4	--	46	25	0
Sunset Heights	173	40	26	11	1	78	45	41
The Oaks	75	15	23	3	--	41	55	36
Washington	72	15	8	5	--	28	39	26
Total	**2,835**	**660**	**326**	**172**	**26**	**1,144**	**42**	**32**

[1]Number of graduates or month when session ends. Source: BTOP User Reports Cumulative (12-31-11).

The percent of building residents that graduated ranged from a high of 66 percent to a low of 20 percent. There appeared to be a negative relationship between building size and graduation rates in that the smaller the building the larger the graduation rate. It may be that CPMs are better able to inculcate themselves into the culture of smaller buildings and can directly engage a higher percentage of residents in the project. Another possible explanation is that the ratio of computer stations to building residents is higher in smaller buildings, thereby providing more access to computers immediately after the launch festivities while the program is new and of greatest interest. Yet another potential contributor to high graduation rates is the amount of time the CPM was present in the building prior to the program launch.

With respect to broadband subscriptions, the percent of residents who are identified as broadband subscribers varied from zero at Churchview and Spring Valley to a high of 63 percent at Sankofa House. Once again, with few exceptions, smaller buildings had higher subscription rates than larger building. Each building has or will have free BTOP-funded broadband because the BTOP grant provides funds for free connectivity through August 2012.

Finding 4: A total of 1,144 people, or 42 percent of all building residents, successfully completed the program.

Finding 5: The graduation rate varied considerably by building and ranged from 20 percent to 79 percent. With a few notable exceptions, graduation rates were higher in smaller buildings.

Finding 6: A total of 32 percent of building residents reported themselves as broadband subscribers.

Finding 7: Broadband subscription rates varied considerably by building with a high of 63 percent and a low of zero.

Recommendation 1: Connected Living should clarify the plans they have in place to encourage building residents to sign up for a paid broadband subscription when BTOP-funded broadband ends.

The project timeline shown in Figure 2 shows the buildings in order of their launch dates. As planned, the earliest buildings to launch were the first buildings to transition from a dedicated on-site CPM to a volunteer-led program. Each building had a volunteer in place prior to the departure of the CPM. Connected Living began identifying, recruiting, and training volunteers early in the program so they would be ready to assume responsibilities when full-time CPMs were phased out. Connected Living began transitioning the day-to-day activities of the building CPMs to volunteers in September 2011. All but eight buildings had effectively transferred activities to volunteers by the end of 2012.

Although volunteers were recruited in a number of ways, in most instances, Connected Living drew from building residents, some of them influencers, who completed CLASP and remained active in the program. Some volunteers were secured by building outreach contacts made by building CPMs or by Connected Living senior management. During field visits, the evaluation team interviewed several volunteers. All felt well trained and supported and appeared to be

actively carrying out the CLASP program. This transition plan appears to be unfolding in an orderly and methodical manner. Connected Living is in the process of consolidating project leadership into a small team of regional CPMs with responsibilities for regionally organized groups of buildings.

While the figure shows volunteers leading the programs beyond the end of December 2011, the evaluation team will not be able to assess whether volunteer led programs will remain active until the end of the BTOP funding. This issue will be addressed in the final evaluation report in July 2012.

Figure 2 also indicates the first month the CPM worked in the building. While there are exceptions, buildings that had CPMs in place for longer periods prior to the launch had higher graduation rates from early sessions and in many cases higher cumulative graduation rates.

Finding 8: Each of the program buildings had a dedicated CPM for between 8 and 12 months.

Finding 9: Connected Living has almost completely transitioned the day-to-day project activities to volunteers who had been trained and put in place in the project buildings.

Finding 10: Project leadership was being consolidated into a small team of regional CPMs who have responsibility for project activities in clusters of buildings.

Recommendation 2: Connected Living should formalize and systematize all activities related to transitioning the project from CPM-led to volunteer-led activities. This includes policies on the selection, training, and oversight of the volunteer program and its long-rm sustainability.

Figure 2
Project Timeline

	2010			2011												2012					
	Quarter One			Quarter Two			Quarter Three			Quarter Four			Quarter Five			Quarter Six			Quarter Seven		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Elois McCoy		12																			
The Oaks		16																			
North Main		18																			
Midtown		22																			
Saratoga		29																			
Kennedy			8																		
Sunset Heights			14																		
Spencer			15																		
Sankofa				19																	
Bridgeport				25																	
Bethel					1																
Hollis					10																
Stevenson					16																
Golden Years					17																
Churchview					18																
Mazon					22																
Washington					25																
Azzarelli						4															
Spring Valley						16															
Hillside						17															
Olsen						30															
Park Terrace						31															
Mills Park							6														

CPM — #= launch

Volunteer

Neighborhood Outreach.

In the BTOP grant application Connected Living proposed to undertake outreach activities to encourage people who could benefit from the project's built infrastructure and CLASP to enroll in the training program. These neighborhood outreach activities undertaken by Connected Living were intended to encourage people living in the neighborhoods around the program buildings to participate in CLASP and enroll in computer training.

Connected Living continued to recruit, enroll, and graduate participants through their neighborhood outreach efforts from July 31, 2011 through December 31, 2011. The results of these efforts are shown in Table 5. The total number of graduates reached 641, more than three times the total of 209 at the end of July 2011. The number of broadband subscribers surged from 6 to 368 during this period. Connected Living requires proof of broadband subscription before issuing refurbished computers to graduates of neighborhood outreach. Proof ordinarily consists of providing a utility bill indicating broadband services at participants' place of residence.

Table 5
Neighborhood Outreach

Building	Population in Building Census Tract	Total Graduated (as of 7-31-2011)	Total Graduated (as of 12-31-2011)	Broadband Subscribers (as of 7-31-2011)	Broadband Subscribers (as of 12-31-2011)
Adlai Stevenson	5,434	0	67	0	48
Azzerelli Tower	3,417	0	0	0	0
Bethel New Life	5,669	3	61	0	25
Bridgeport	4,257	0	13	0	7
Churchview	--	25	30	0	15
Elois McCoy	8,969	5	15	0	5
Golden Years	5,582	0	6	1	2
Hillside Heights	3,991	19	23	0	20
Hollis House	3,594	0	6	0	0
John F. Kennedy	--	24	82	2	30
Mazon Park Tower	3,545	2	17	0	4
Midtown Tower	5,576	0	0	0	0
Mills Park Tower	5,358	0	18	0	11
North Main	1,708	3	18	0	14
Olesen Plaza	--	7	7	0	4
Park Terrace	3,247	0	21	0	8
Sankofa House	4,519	10	38	3	33
Saratoga Tower	2,773	0	2	0	1
Spencer Tower	1,968	5	57	0	36
Spring Valley	4,227	105	113	0	72
Sunset Heights	1,955	0	8	0	4
The Oaks	3,753	0	30	0	26
Washington	3,322	0	9	0	3
Totals	82,864	209	641	6	368

Finding 11: Connected Living improved the level of recruitment and participation in neighborhood outreach by over 300 percent between July 31 and December 31 of 2011.

Finding 12: Connected Living trained a total of 641 people through neighborhood outreach efforts, 368 (57.4 percent) of whom are confirmed broadband subscriber.

External Outreach.

In addition to neighborhood outreach, Connected Living developed and implemented another form of outreach called external outreach. External outreach uses relationships between Connected Living and various community-based organizations and programs to deliver some or all of the CLASP essential components to the people those organizations and programs serve. External outreach activities refer to the site where the program is delivered. Many external outreach sites serve people who live in building neighborhoods. Table 6 lists the external outreach partners and associated outcomes.

Table 6
External Outreach Partners

Partner	Unique Logons	Total Graduated (as of 12-31-2011)	Broadband Subscribers (as of 12-31-2011)
Pioneer Gardens	17	11	9
Sunshine Ministries	110	85	80
Abbot Park	0	0	0
AKARAMA	17	10	10
Apostolic Church of Chicago	44	33	17
Harvey Community Center	0	0	0
Shiloh Church	23	23	14
Rush Generations (Rush UMC)	25	18	6
Fifth City Chicago	0	0	0
Strategic Human Services	0	0	0
United for Better Living	5	5	0
West Town	0	0	0
Kankakee County Community Service	31	9	6
Joliet Salvation Army	0	0	0
Oswego Senior Center	4	8	4
Lee County Senior Center	0	0	0
Civic Apartments	16	11	0
Faust Landmark	3	0	0
Booker Washington Community Center	0	0	0
Literacy Council	0	0	0
Brewington Oaks	0	0	0
Casa Guanajuato	20	12	7
Church of Pace Community Caring Conference	4	0	2
Western Illinois Area on Aging	22	21	10
Broadway Presbyterian Church	0	0	0
Project NOW	32	18	2
Totals	**373**	**264**	**167**

A total of 373 people have logged-on in computer centers used in external outreach. As of January 31, 2011, 309 people graduated from the training program and 167 (65.1 percent) were verified broadband subscribers.

Connected Living oversees and assures the quality and consistency of the CLASP programming by periodically auditing and visiting the sites. They have modified their "Resident Info Sheet" to include external outreach activities. The baseline data was not available at the time of the writing of this report, but those statistics will be available and included in the final evaluation report.

Similar to the policy used in neighborhood outreach, external outreach graduates must provide evidence of broadband subscriptions before they are eligible to receive refurbished computers.

Finding 13: Connected Living has developed and implemented a program of "external outreach" to deliver CLASP components in settings outside of the 23 project buildings.

Finding 14: As of December 31, 2011, Connected Living had trained 264 people through their external outreach efforts, 167 (65.1 percent) of whom are confirmed broadband subscribers.

Summative Findings

Building Resident Outcomes.

The summative portion of this evaluation is based on pre-post use of a questionnaire designed to capture key program outcomes. “Pre-post” means that program participants were asked the same question before and after the program to determine changes in their behavior. The NIU evaluation team designed and pilot tested a seven-page questionnaire that served as the primary means to measure and assess project outcomes.

The pre-post measure of outcomes was used for the last 12 of the 23 buildings to launch.[4] The first 11 buildings were not included in the pre-post analysis due to an aggressive launch schedule and the unavailability of the questionnaire during this early implementation phase. As a result, the summative findings presented here are limited to those 12 buildings.

The seven-page questionnaire was given to all program participants prior to the beginning of training. This first administration of the survey serves as a baseline against which later surveys are compared. A second administration of the survey was by email to all of the people who completed baseline surveys and was timed to reach the participants approximately six months after they began training.

NIU received at total of 533 baseline seven-page baseline questionnaires as of December 31, 2011. Of these respondents, 121 or 22.7 percent also completed the post program questionnaire between September and the end of December of 2011.[5]

The following analysis distinguishes between program participants who are building residents and nonresidents who participated through neighborhood outreach. Table 7 shows the characteristics of respondents to the baseline survey (pre) and the second administration (post) of the survey. There are a total of 399 baseline and 91 follow-up surveys from building residents. Despite a difference in the size of these two populations they are very similar in their demographic characteristics. As noted above, analysis shows that the baseline and follow-up responses are statistically similar and the effects of non-response bias are minimal.

[4] The 12 buildings are: Adlai Stevenson, Azzerelli Tower, Churchview, Golden Years, Hillside Heights, Hollis House, Mazon Park Tower, Mills Park Tower, Olesen Plaza, Park Terrace, Spring Valley, Washington.

[5] The pre-post survey is not based on matched samples. It is important to note that while there is little or no statistical difference in the basic demographic characteristics of those who completed the pre and post survey, it is possible that the lower response rate to the post surveys may bias the findings. The pre surveys were administered in hard copy and the CPMs assisted those with low levels of literacy, disabilities, or other impairments. The post surveys were administered on-line.

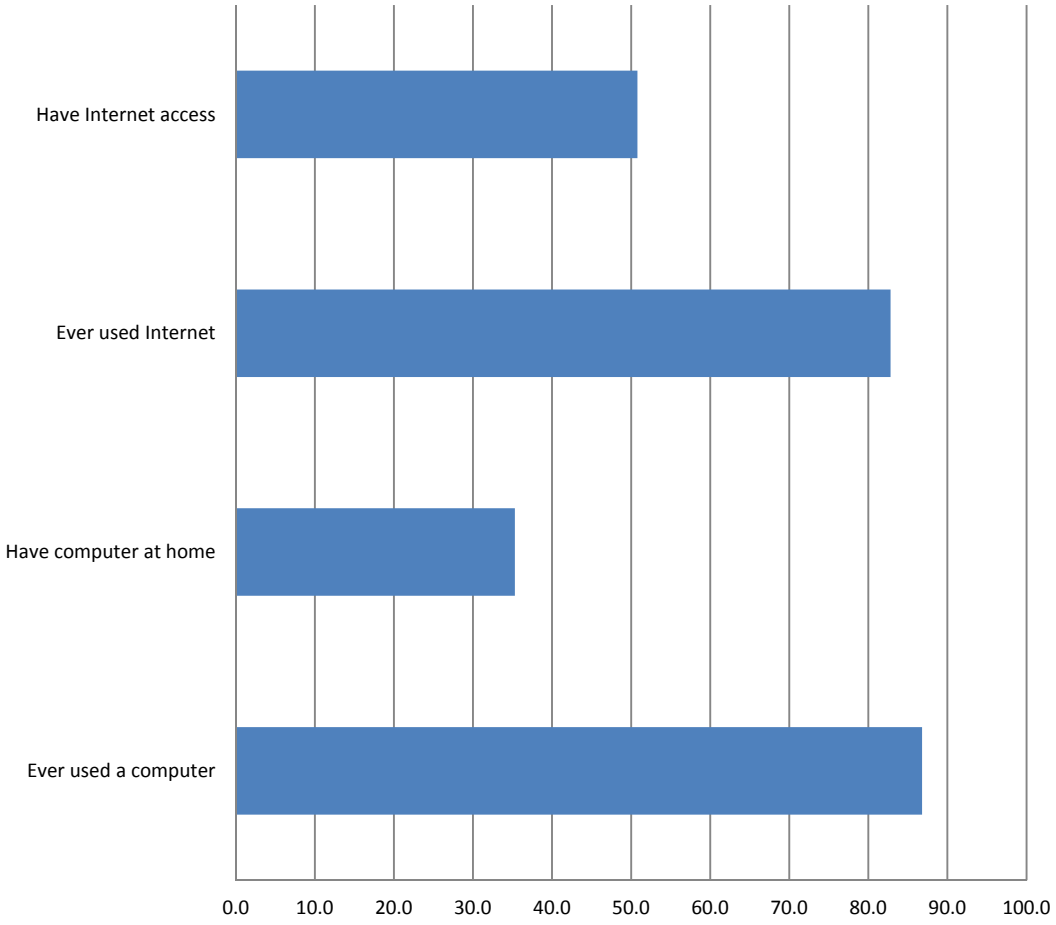
Table 7
Characteristics of Survey Respondents
Building Residents

Characteristic	Pre	Post
Gender		
Male	38.8%	39.9%
Female	61.2%	60.1%
Average Age	54.6	55.2
Ethnicity		
African-American	36.2%	36.8%
White	60.5%	62.1%
Hispanic	1.6%	1.1%
Native American	1.8%	0.0%
Educational Attainment		
Less than High School	4.1%	3.8%
High School or GED	25.4%	27.4%
Some College	36.2%	37.1%
College Degree (or higher)	34.3%	31.7%
Primary Language		
English	95.7%	97.3%
Spanish	0.5%	0.3%
Other	3.8%	2.4%
Income		
Less than $5,000	37.4%	36.8%
$5,000-$15,000	49.3%	49.1%
$15,001-$30,000	11.9%	10.1%
Over $30,000	1.4%	4.0%
Number of Surveys	**399**	**91**

The difference in pre and post results were evaluated using two-sample test of proportions (Z) or paired samples t-test. No statistically significant ($p \geq .05$) differences were detected.

The figures that follow are from the baseline survey of building residents. As evident in Figure 3, 86.8 percent of the people who enrolled in the program indicated that they had used a computer at some point in their life, and 35.3 percent reported having a computer at home. Nearly eighty-three percent (82.8 percent) had experience accessing the Internet and just over one-half (50.8 percent) had a regular source of Internet access which might include home computer access or access via smart phones or other hand-held device. These findings are at odds with the assumptions made in the BTOP grant applicaton.[6]

Figure 3
Initial Survey of Computer and Internet Use
Building Residents

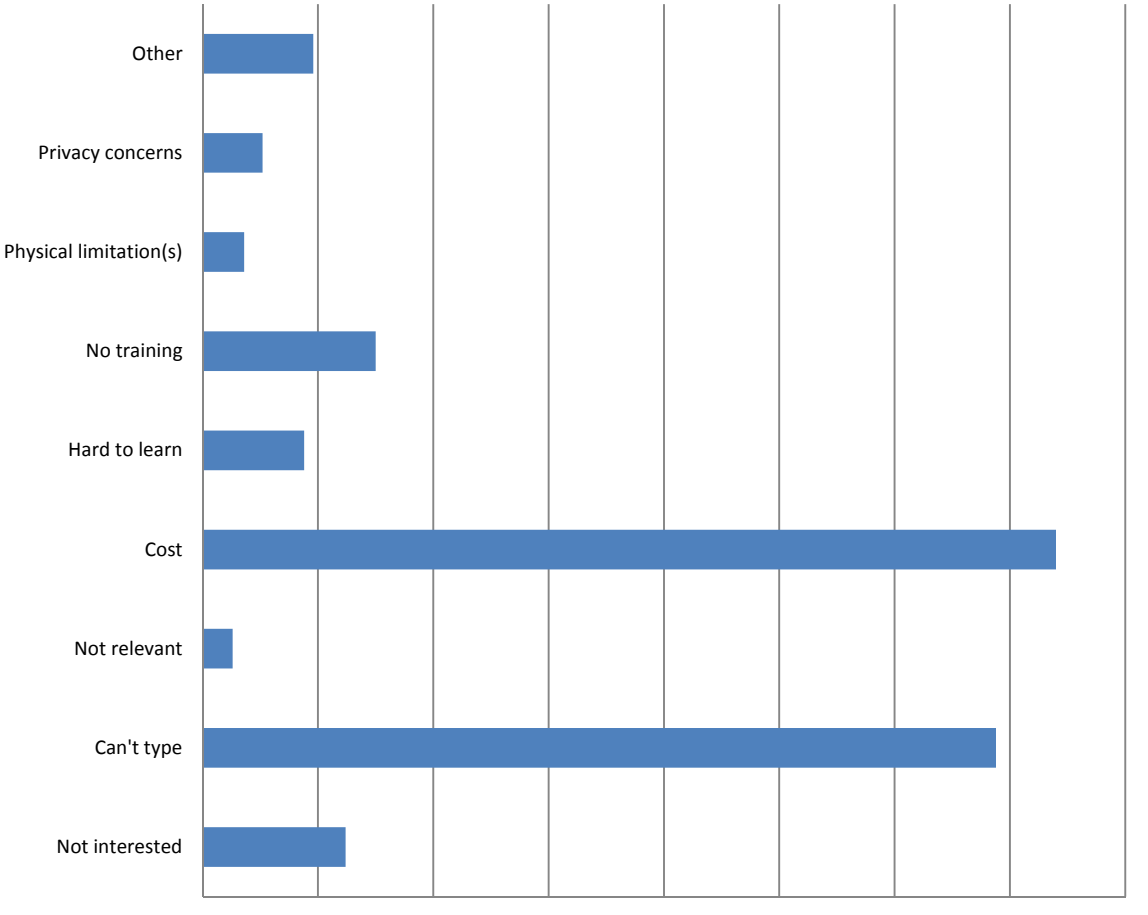


	Ever used a computer	Have computer at home	Ever used Internet	Have Internet access
Percent	86.8	35.3	82.8	50.8

[6]NTIA SBA Application Number 4561, the Getting Illinois Low Income Seniors and People with Disabilities Online Demonstration Project. Section C., Page 5. 2010. "Less than 5% of the 3,296 seniors and people with disabilities who live in the 23 low income housing developments of this Illinois Senior Internet Adoption Coalition proposal currently use broadband."

Of the people that reported that they were not computer users (Figure 4), the most frequent reason given for non-use was cost (37.0 percent) followed by the inability to type (34.4 percent). Only 6.2 percent indicated that they were not interested in computers and 1.3 percent felt that computer use was irrelevant to them. A lack of training, perceived difficulty in learning how to use computers, privacy concerns, and physical limitations were also cited as barriers to computer use.

Figure 4
Reason Not Using Computers
Building Residents

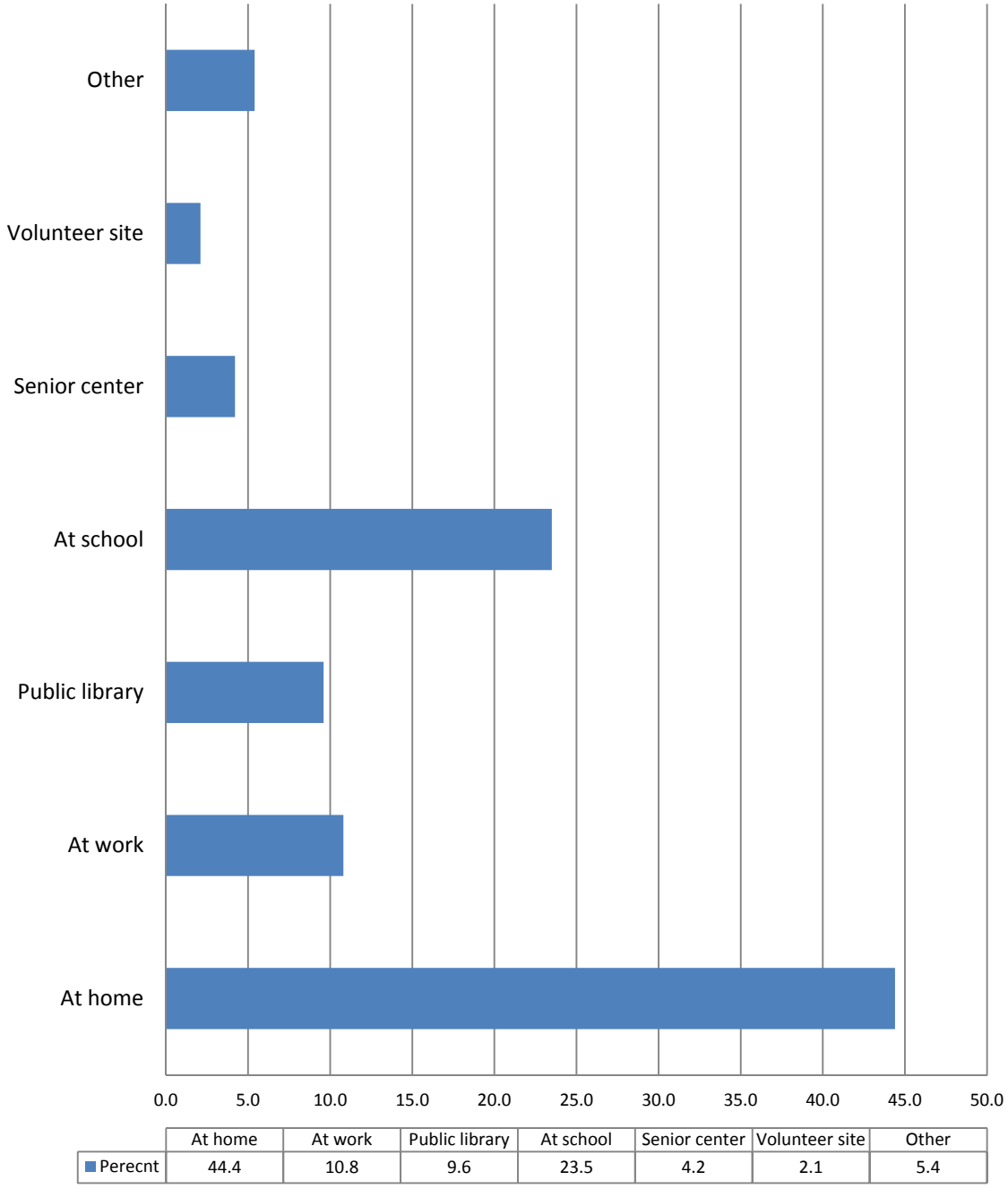


	Not interested	Can't type	Not relevant	Cost	Hard to learn	No training	Physical limitation(s)	Privacy concerns	Other
Perecnt	6.2	34.4	1.3	37.0	4.4	7.5	1.8	2.6	4.8

Of the people that reported using computers, the most common location was at home (44.4 percent). Almost one-fourth (23.5 percent) used computers at school, 10.8 percent at work, 9.6

percent at public libraries, and the remaining 11.7 percent at a senior center, volunteer site, or other location. Figure 5 illustrates this distribution.

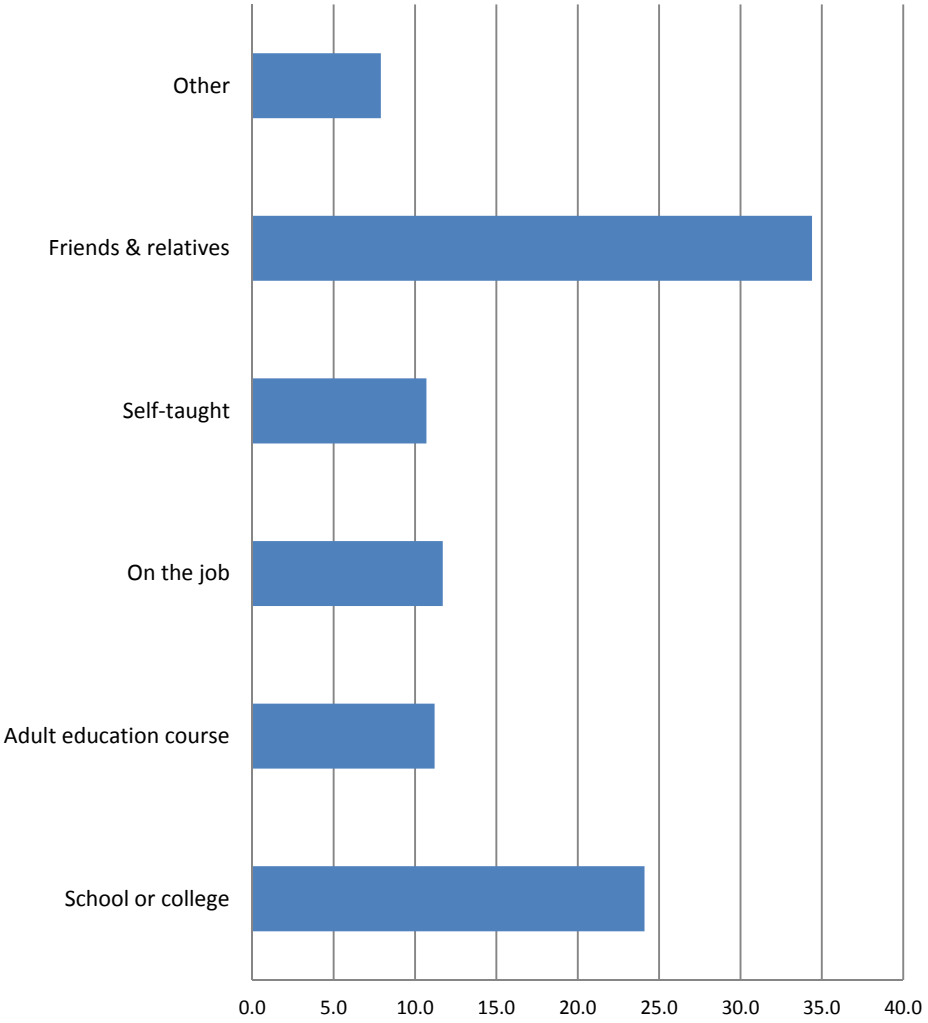
Figure 5
Place Where Use Computers
Building Residents



	At home	At work	Public library	At school	Senior center	Volunteer site	Other
Perecnt	44.4	10.8	9.6	23.5	4.2	2.1	5.4

Figure 6 shows that most of the people who reported being computer users learned from friends and relatives (34.4 percent) or at school or college (24.1 percent). Other places where the respondents learned to use computers were on the job (11.7 percent) or from an adult education course (11.2 percent). Only 10.7 percent said they taught themselves to use computers.

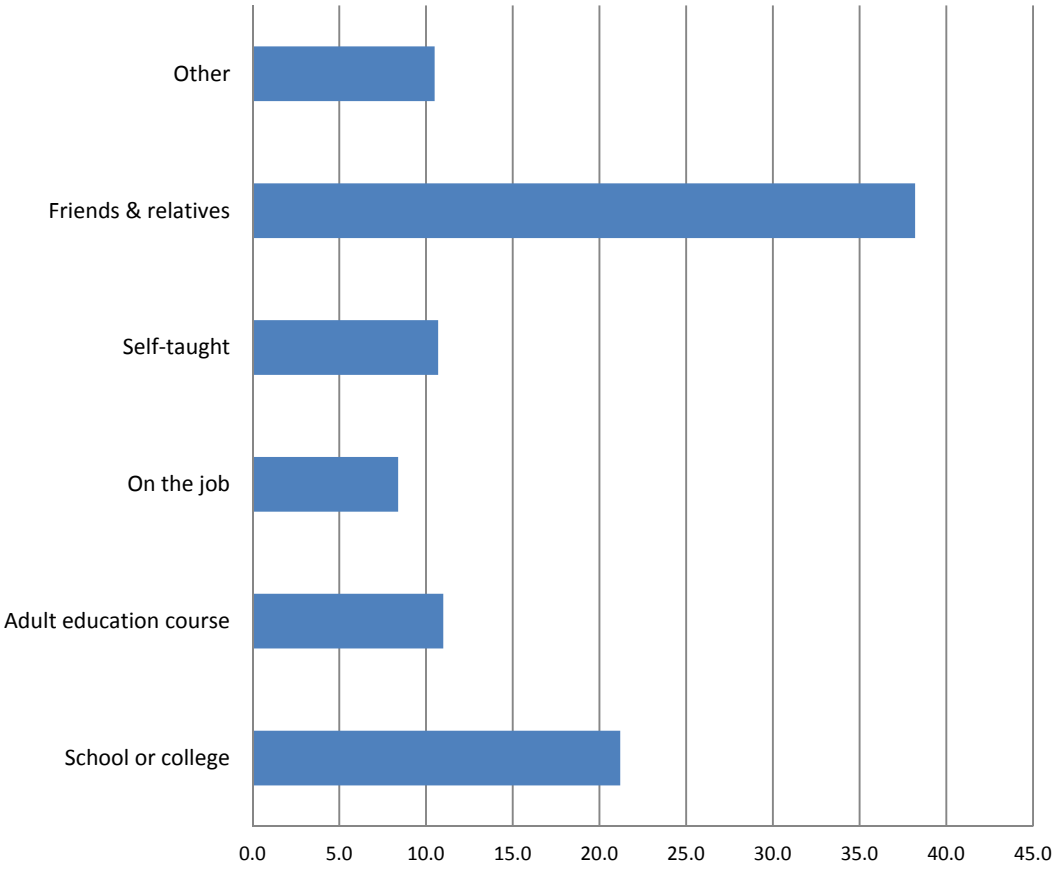
Figure 6
Learned to Use the Computer
Building Residents



	School or college	Adult education course	On the job	Self-taught	Friends & relatives	Other
Perecnt	24.1	11.2	11.7	10.7	34.4	7.9

The profile of where people reported learning to use the Internet (see Figure 7) is similar to that of learning to use the computer. Most people reported learning to use the Internet from friends and relatives (38.2 percent) and at school or college (21.2 percent). Other locations were adult education courses (11.0 percent) or on the job (8.4 percent). A total of 10.7 percent reported having taught themselves how to use the Internet.

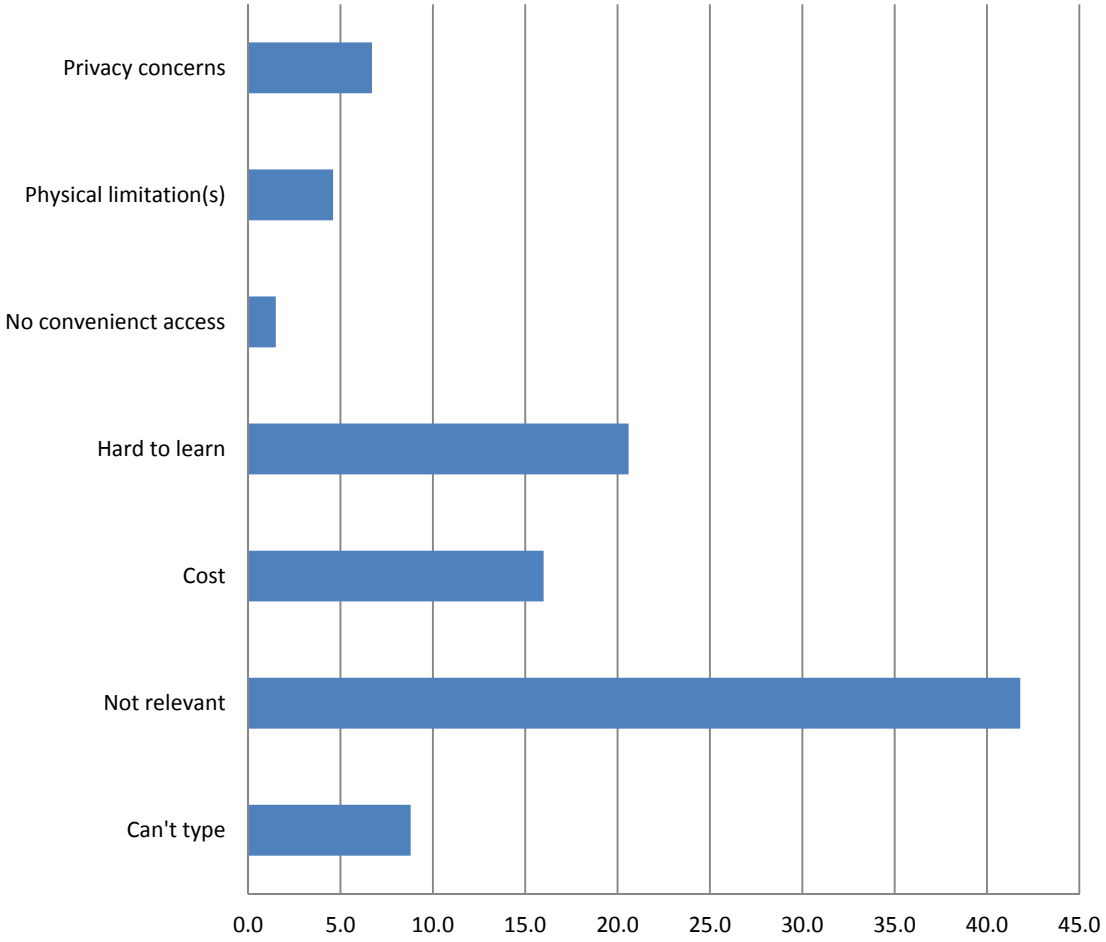
Figure 7
Learned to Use the Internet
Building Residents



	School or college	Adult education course	On the job	Self-taught	Friends & relatives	Other
Perecnt	21.2	11.0	8.4	10.7	38.2	10.5

Differences did emerge in perceived barriers to computer and Internet use. While only 1.3 percent of non-computer users thought that computers were not relevant, 41.8 percent of the non-Internet users thought it was not relevant (see Figure 8). Similarly, 34.4 percent of those who did not use computers said they did not do so because they could not type, while only 8.8 percent of those not using the Internet gave the same reason. Many people who thought computers were relevant thought Internet use was not relevant. The other barriers to Internet use -- physical limitations, privacy concerns, and convenience of access -- are similar to those given for not using computers. Cost is a much more significant perceived barrier to computer use than to Internet use. This project addresses the cost and training barrier, but perceptions of CLASP awareness building activities. Programs that provide training and free computers are likely to be less successful than those that include an active Internet engagement strategy.

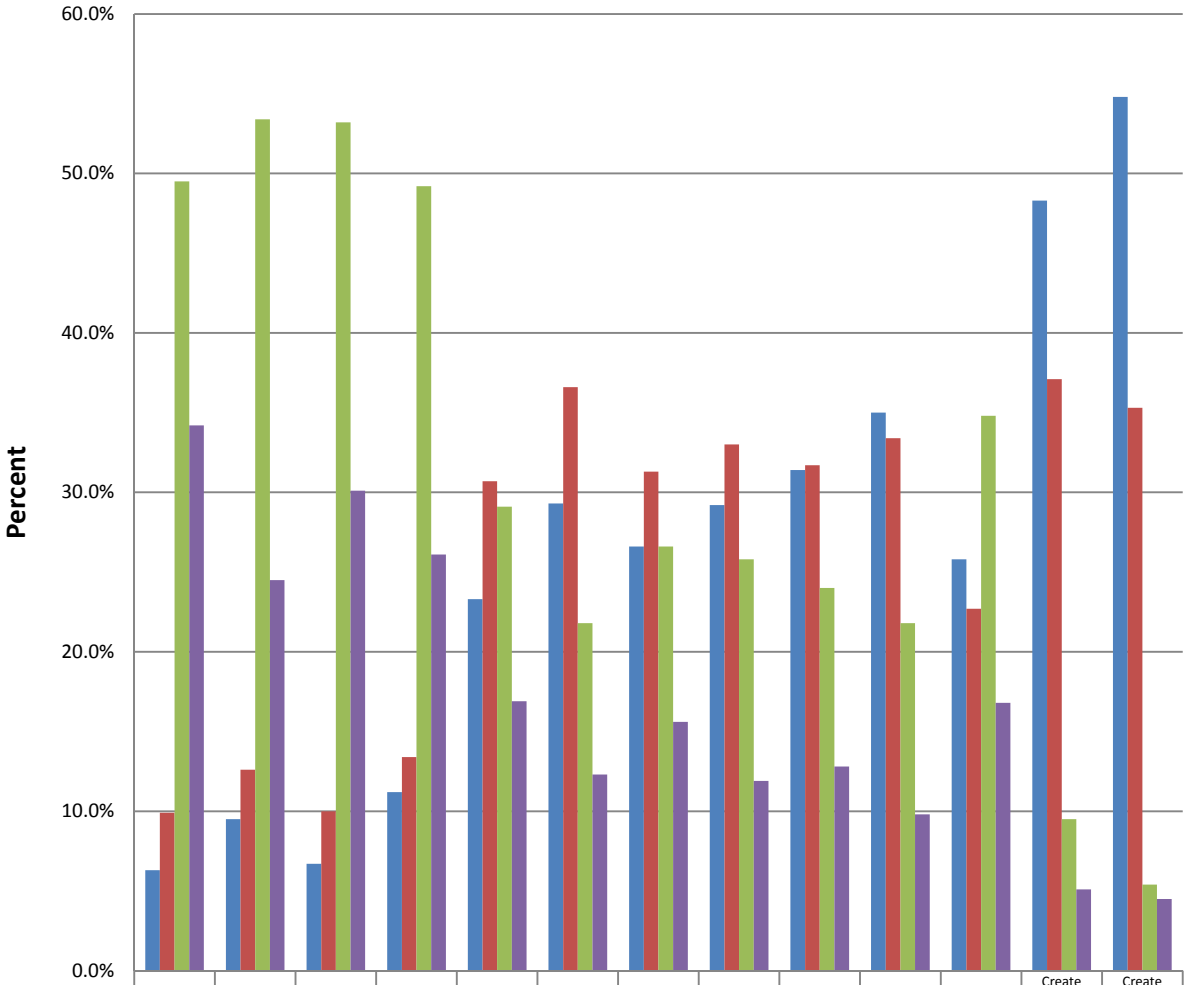
Figure 8
Reason Not Using Internet
Building Residents



	Can't type	Not relevant	Cost	Hard to learn	No convenienct access	Physical limitation(s)	Privacy concerns
Perecnt	8.8	41.8	16.0	20.6	1.5	4.6	6.7

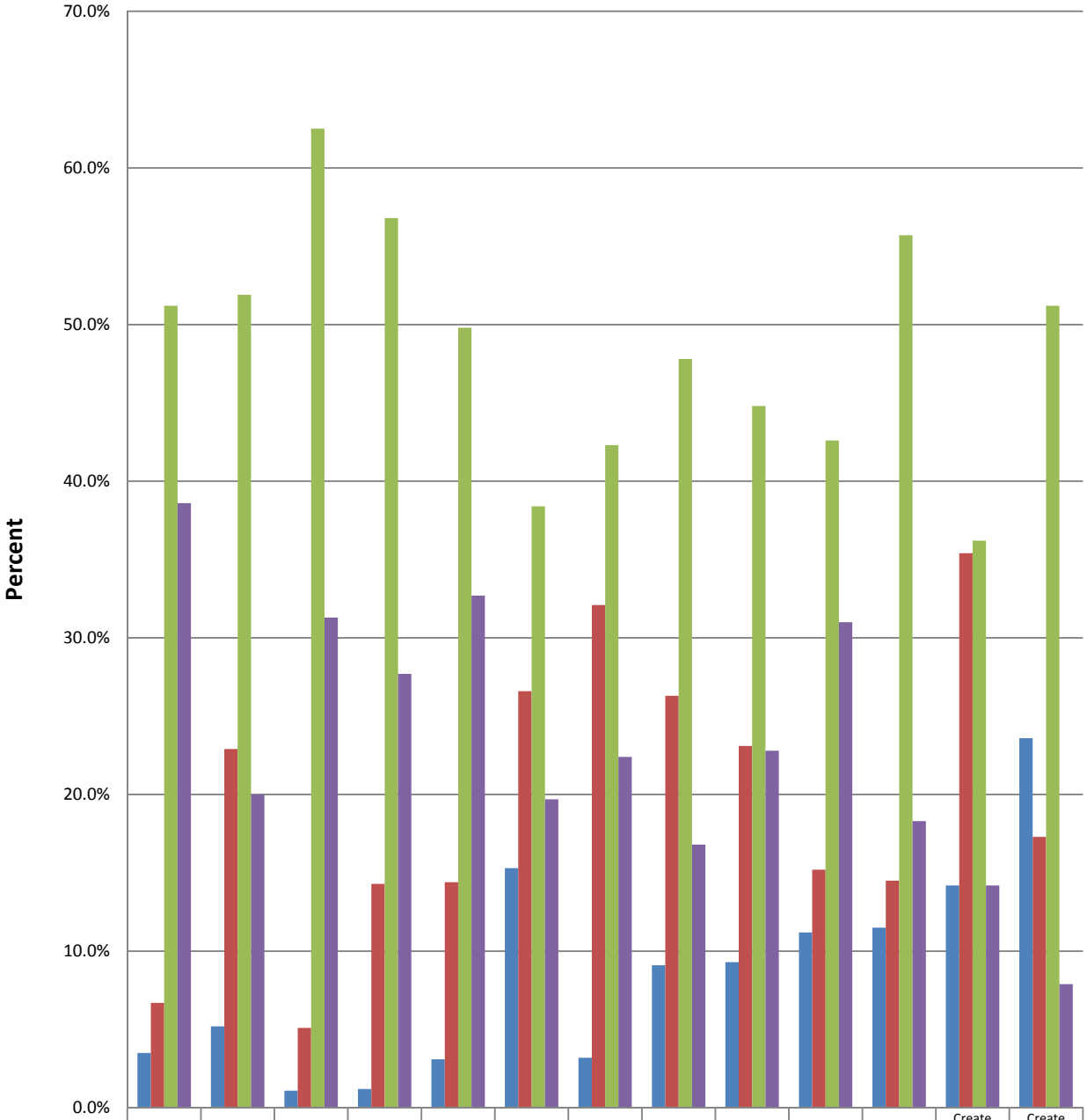
Figures 9 and 10 show participants' self-assessment of their computer skills just prior to the program and six months after completion of the program. The computer skills are arrayed in order of difficulty from left to right, from the simplest task of turning on a computer on to the more advanced skills of setting up a spread sheet or making a PowerPoint presentation. Respondents to the questionnaire ranked their skills on a four-point scale with the lowest ranking "not at all" and the highest ranking "can teach others". Middle rankings included "with help" and "on own".

Figure 9
Self-Assessed Computer Skills Prior to Training
Building Residents



	Turn on computer	Type on a keyboard	Point with mouse	Open a window	Open an application	Create a document	Save a document	Open a document	Edit a document	Cut, copy and paste	Print	Create spread sheet	Create Power Point
Not at all	6.3%	9.5%	6.7%	11.2%	23.3%	29.3%	26.6%	29.2%	31.4%	35.0%	25.8%	48.3%	54.8%
With help	9.9%	12.6%	10.0%	13.4%	30.7%	36.6%	31.3%	33.0%	31.7%	33.4%	22.7%	37.1%	35.3%
On own	49.5%	53.4%	53.2%	49.2%	29.1%	21.8%	26.6%	25.8%	24.0%	21.8%	34.8%	9.5%	5.4%
Can teach others	34.2%	24.5%	30.1%	26.1%	16.9%	12.3%	15.6%	11.9%	12.8%	9.8%	16.8%	5.1%	4.5%

Figure 10
Self-Assessed Computer Skills Six Months After Training
Building Residents

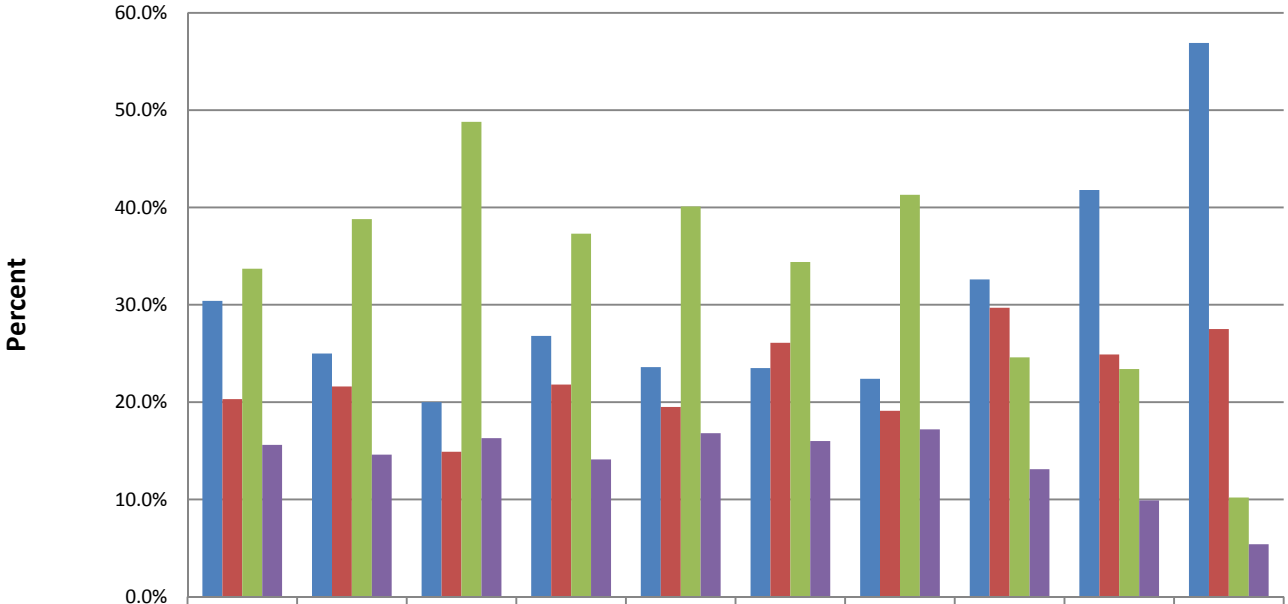


	Turn on computer	Type on a keyboard	Point with mouse	Open a window	Open an application	Create a document	Save a document	Open a document	Edit a document	Cut, copy and paste	Print	Create spread sheet	Create Power Point
Not at all	3.5%	5.2%	1.1%	1.2%	3.1%	15.3%	3.2%	9.1%	9.3%	11.2%	11.5%	14.2%	23.6%
With help	6.7%	22.9%	5.1%	14.3%	14.4%	26.6%	32.1%	26.3%	23.1%	15.2%	14.5%	35.4%	17.3%
On own	51.2%	51.9%	62.5%	56.8%	49.8%	38.4%	42.3%	47.8%	44.8%	42.6%	55.7%	36.2%	51.2%
Can teach others	38.6%	20.0%	31.3%	27.7%	32.7%	19.7%	22.4%	16.8%	22.8%	31.0%	18.3%	14.2%	7.9%

Skills improvement between baseline and six-month follow-up ranged from a 1.2 percent increase for typing on a keyboard to an 83.3 percent increase in ability to make a PowerPoint presentation. With the exception of typing on a keyboard, the respondents reported improvements in performing all of the skills with an average improvement of 36.7 percent. In order to assess skill improvements a composite "magnitude of change," statistic has been calculated. The magnitude of change is the percent of those selecting the highest two skill levels ("on own" and "can teach others") prior to training added together and compared to the sum of the percent selecting those levels at six-month follow-up. All references to magnitude of change calculated this way.

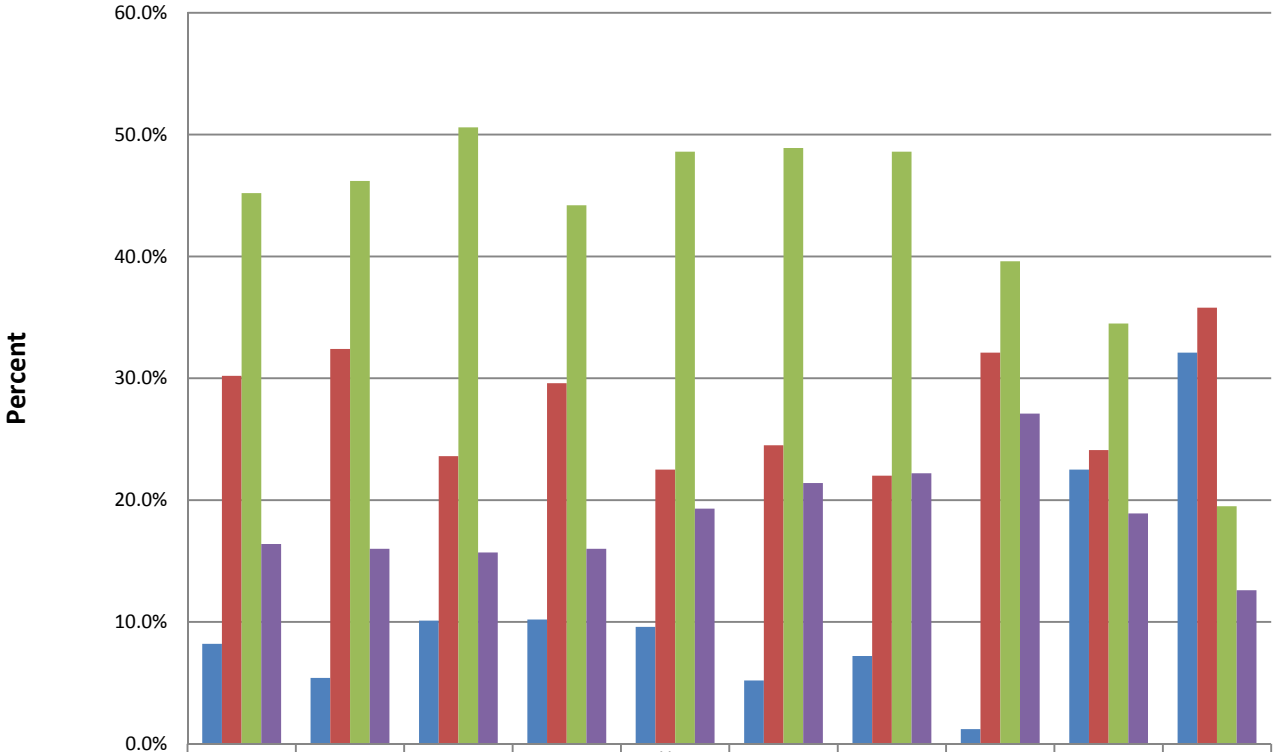
Figures 11 and 12 show program participants' perceptions of their Internet skills just prior to the program and six months after completion of the program. Skill improvements ranged from 1.8 percent for using scroll bars to 51.4 percent for using the Internet to place phone calls. It should be noted again that most participants knew how to perform simple computer tasks prior to training so the follow-up scores for those tasks show little change. However, the average increase in skill of 24.5 percent shows significant gains from the time participants enrolled in training to the six-month follow-up. These gains are attributable, at least in part, to the training program.

Figure 11
Self-Assessed Internet Skills Prior to Training
Building Residents



	Enter a URL	Go to Web page	Use scroll bars	Use search engine	Use browser back button	Open an email	Reply to an email	Attache message to email	Use online chat	Use Internet phone
Not at all	30.4%	25.0%	20.0%	26.8%	23.6%	23.5%	22.4%	32.6%	41.8%	56.9%
With help	20.3%	21.6%	14.9%	21.8%	19.5%	26.1%	19.1%	29.7%	24.9%	27.5%
On own	33.7%	38.8%	48.8%	37.3%	40.1%	34.4%	41.3%	24.6%	23.4%	10.2%
Can teach others	15.6%	14.6%	16.3%	14.1%	16.8%	16.0%	17.2%	13.1%	9.9%	5.4%

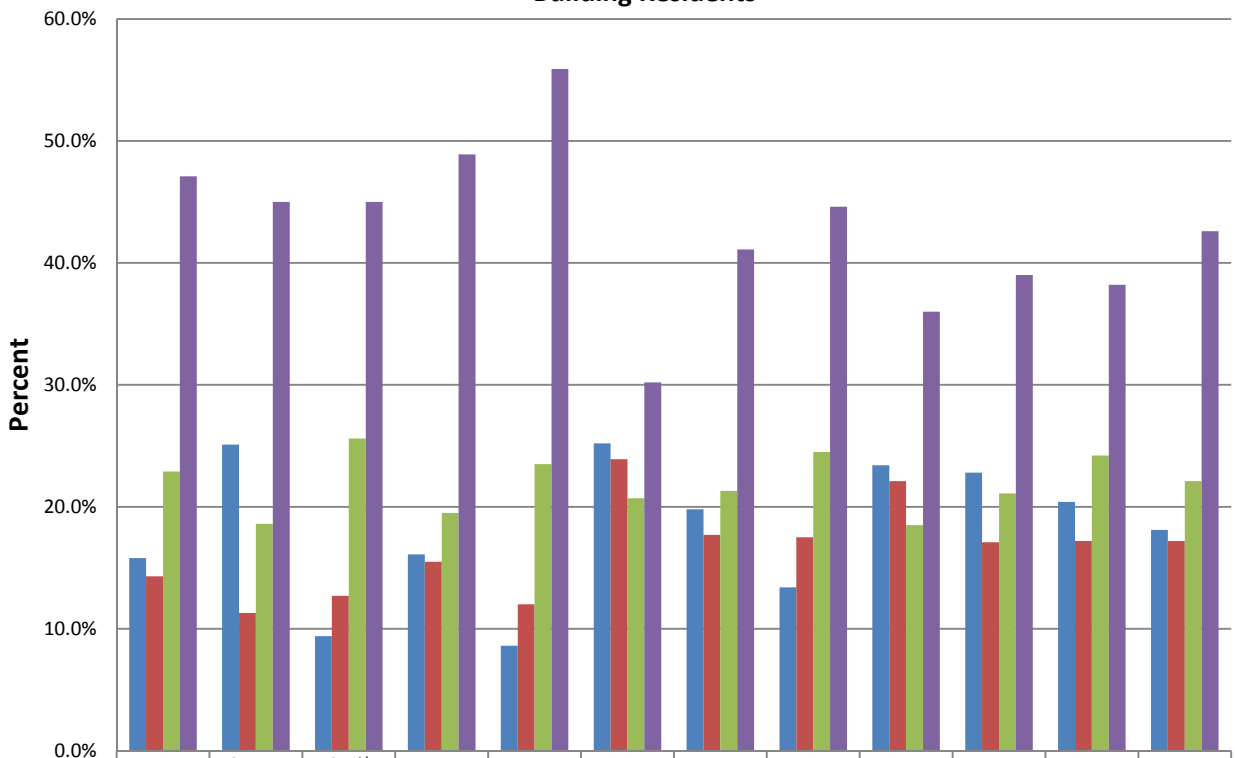
Figure 12
Self-Assessed Internet Skills Six Months After Training
Building Residents



	Enter a URL	Go to Web page	Use scroll bars	Use search engine	Use browser back button	Open an email	Reply to an email	Attache message to email	Use online chat	Use Internet phone
Not at all	8.2%	5.4%	10.1%	10.2%	9.6%	5.2%	7.2%	1.2%	22.5%	32.1%
With help	30.2%	32.4%	23.6%	29.6%	22.5%	24.5%	22.0%	32.1%	24.1%	35.8%
On own	45.2%	46.2%	50.6%	44.2%	48.6%	48.9%	48.6%	39.6%	34.5%	19.5%
Can teach others	16.4%	16.0%	15.7%	16.0%	19.3%	21.4%	22.2%	27.1%	18.9%	12.6%

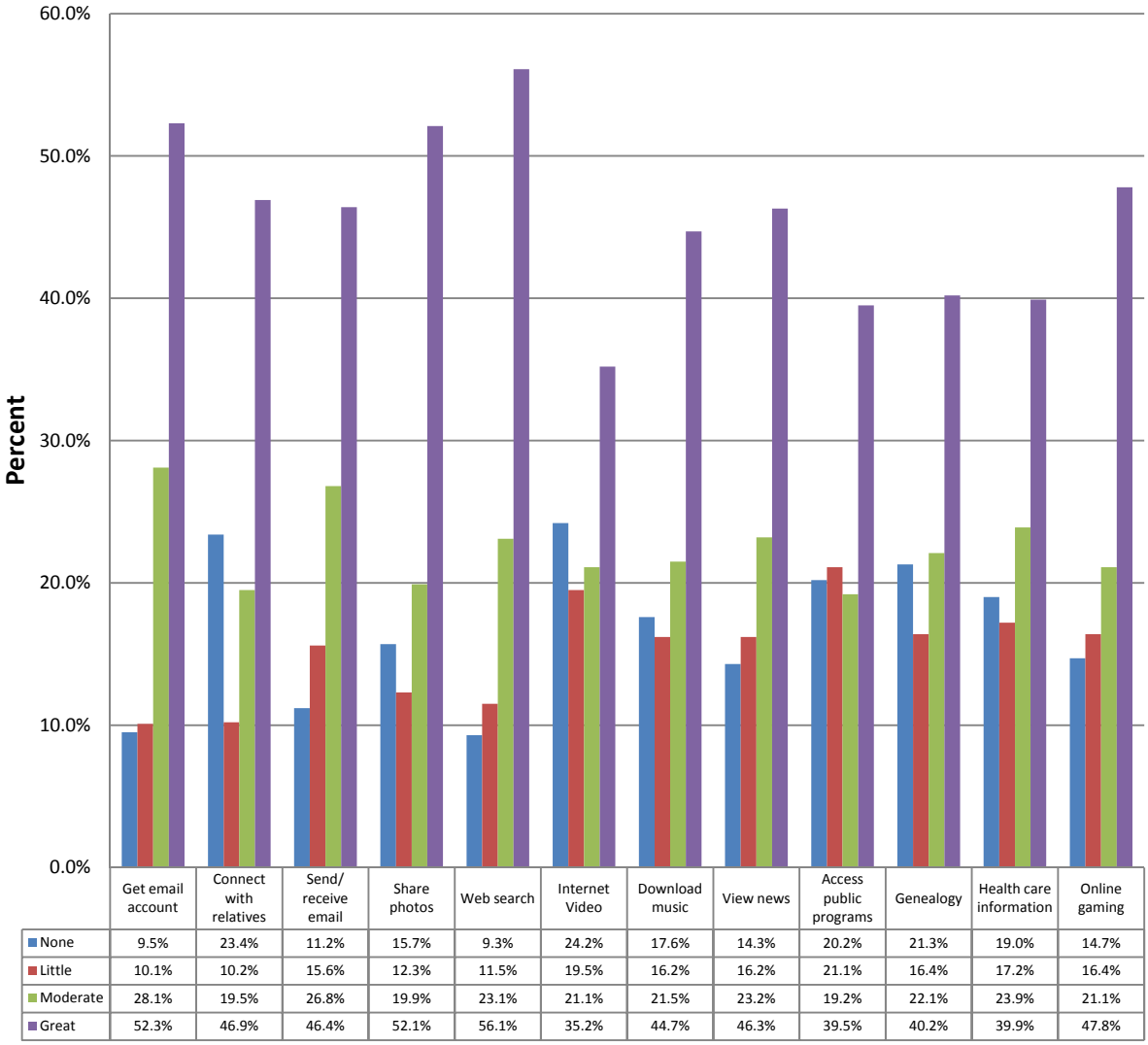
Participants' interest in a wide range of computer and Internet applications are shown in pre-post form in Figures 13 through 16. Increases are evident for all of the applications with an average increase of 9.7 percent. Shopping and banking online, with increases of 34.3 and 38.3 percent, respectively, stand out because of the obvious convenience they provide. Engaging in politics showed the largest increase (61.6 percent) probably because the survey took place during a national election. These findings suggest that the computer training program increased participants' awareness of the practical benefits of Internet use across a broad range of topic areas and applications. Internet adoption and sustained use depend on the relevance people find in Internet applications and the interests they are able to pursue online.

Figure 13
Interest in Web-based Applications Prior to Training Building Residents



	Get email account	Connect with relatives	Send/ receive email	Share photos	Web search	Internet Video	Download music	View news	Access public programs	Genealogy	Health care information	Online gaming
None	15.8%	25.1%	9.4%	16.1%	8.6%	25.2%	19.8%	13.4%	23.4%	22.8%	20.4%	18.1%
Little	14.3%	11.3%	12.7%	15.5%	12.0%	23.9%	17.7%	17.5%	22.1%	17.1%	17.2%	17.2%
Moderate	22.9%	18.6%	25.6%	19.5%	23.5%	20.7%	21.3%	24.5%	18.5%	21.1%	24.2%	22.1%
Great	47.1%	45.0%	45.0%	48.9%	55.9%	30.2%	41.1%	44.6%	36.0%	39.0%	38.2%	42.6%

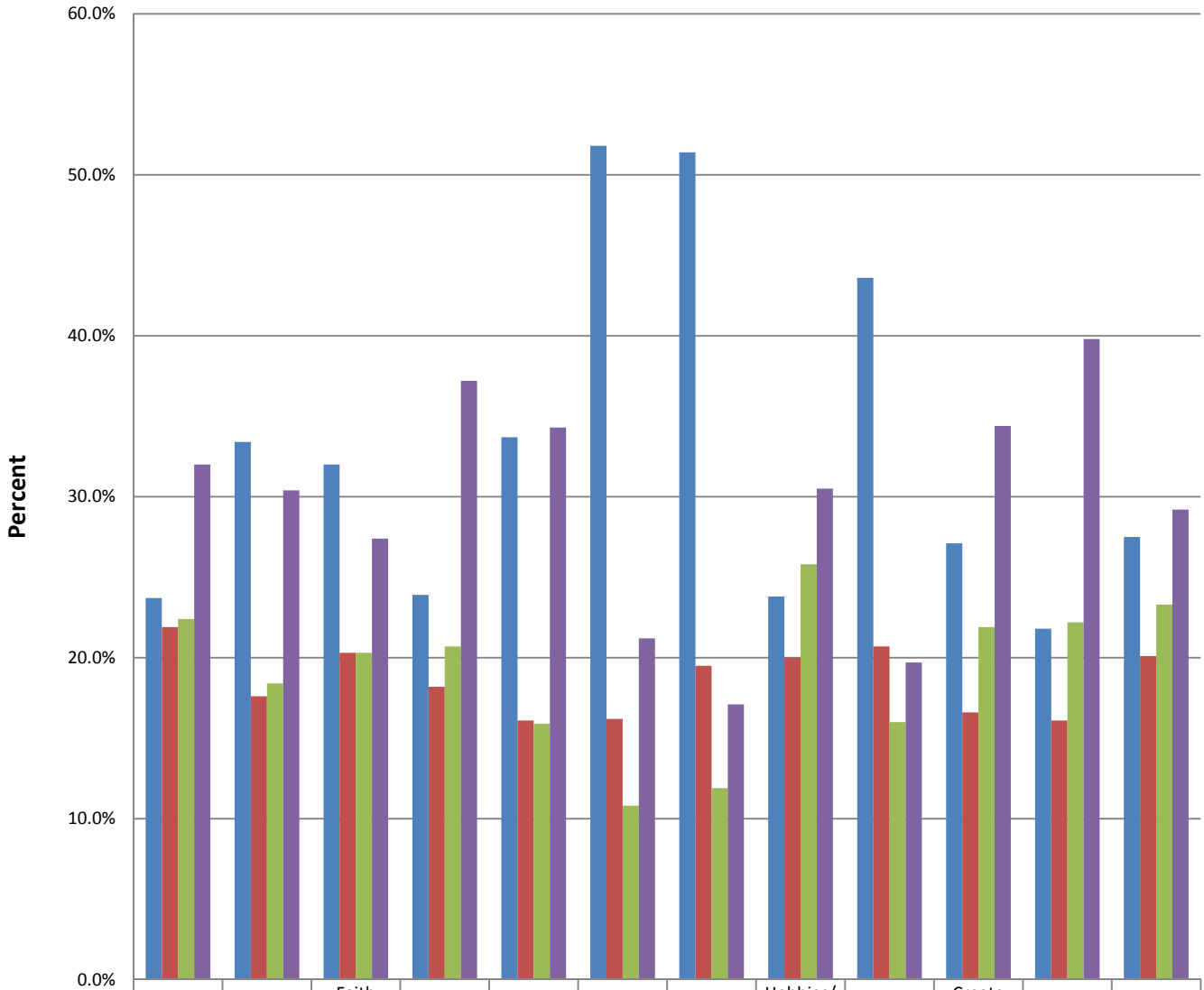
Figure 14
Interest in Web-based Applications Six Months After Training
Building Residents



	Get email account	Connect with relatives	Send/ receive email	Share photos	Web search	Internet Video	Download music	View news	Access public programs	Genealogy	Health care information	Online gaming
None	9.5%	23.4%	11.2%	15.7%	9.3%	24.2%	17.6%	14.3%	20.2%	21.3%	19.0%	14.7%
Little	10.1%	10.2%	15.6%	12.3%	11.5%	19.5%	16.2%	16.2%	21.1%	16.4%	17.2%	16.4%
Moderate	28.1%	19.5%	26.8%	19.9%	23.1%	21.1%	21.5%	23.2%	19.2%	22.1%	23.9%	21.1%
Great	52.3%	46.9%	46.4%	52.1%	56.1%	35.2%	44.7%	46.3%	39.5%	40.2%	39.9%	47.8%

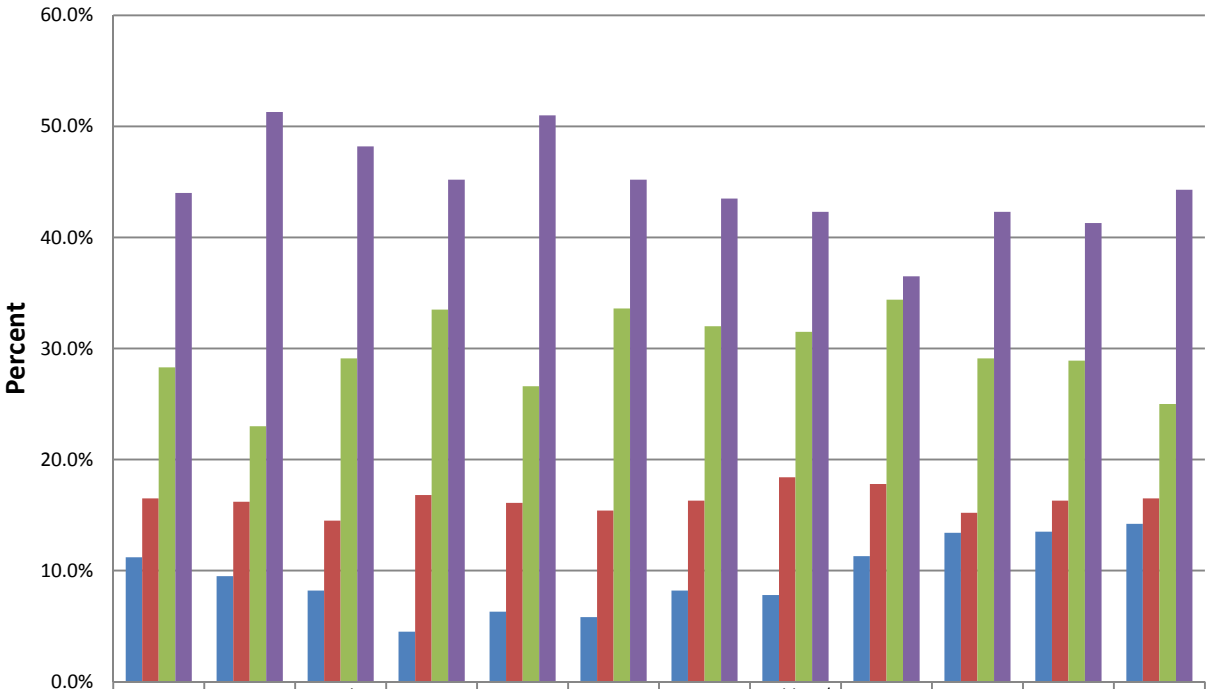
Changes in the economically-focused web-based applications shown in Figures 15 and 16 depict a substantial increases. The percentage of building residents expressing a "great" interest in looking for a job increased over the pre-post period from 34.3 percent to 51.0 percent, more than doubled for starting a business from 21.2 percent to 45.2 percent, and grew from 37.2 percent to 45.2 percent for those interested in pursuing online education.

Figure 15
Interest in Additional Web-based Applications Prior to Training
Building Residents



	Shop online	Bank online	Faith based activities	Online education	Look for jobs	Start a business	Engage in politics	Hobbies/ interest groups	Write memoirs	Create photo album	Facebook	Meet people
None	23.7%	33.4%	32.0%	23.9%	33.7%	51.8%	51.4%	23.8%	43.6%	27.1%	21.8%	27.5%
Little	21.9%	17.6%	20.3%	18.2%	16.1%	16.2%	19.5%	20.0%	20.7%	16.6%	16.1%	20.1%
Moderate	22.4%	18.4%	20.3%	20.7%	15.9%	10.8%	11.9%	25.8%	16.0%	21.9%	22.2%	23.3%
Great	32.0%	30.4%	27.4%	37.2%	34.3%	21.2%	17.1%	30.5%	19.7%	34.4%	39.8%	29.2%

Figure 16
Interest in Additional Web-based Applications Six Months After Training Building Residents

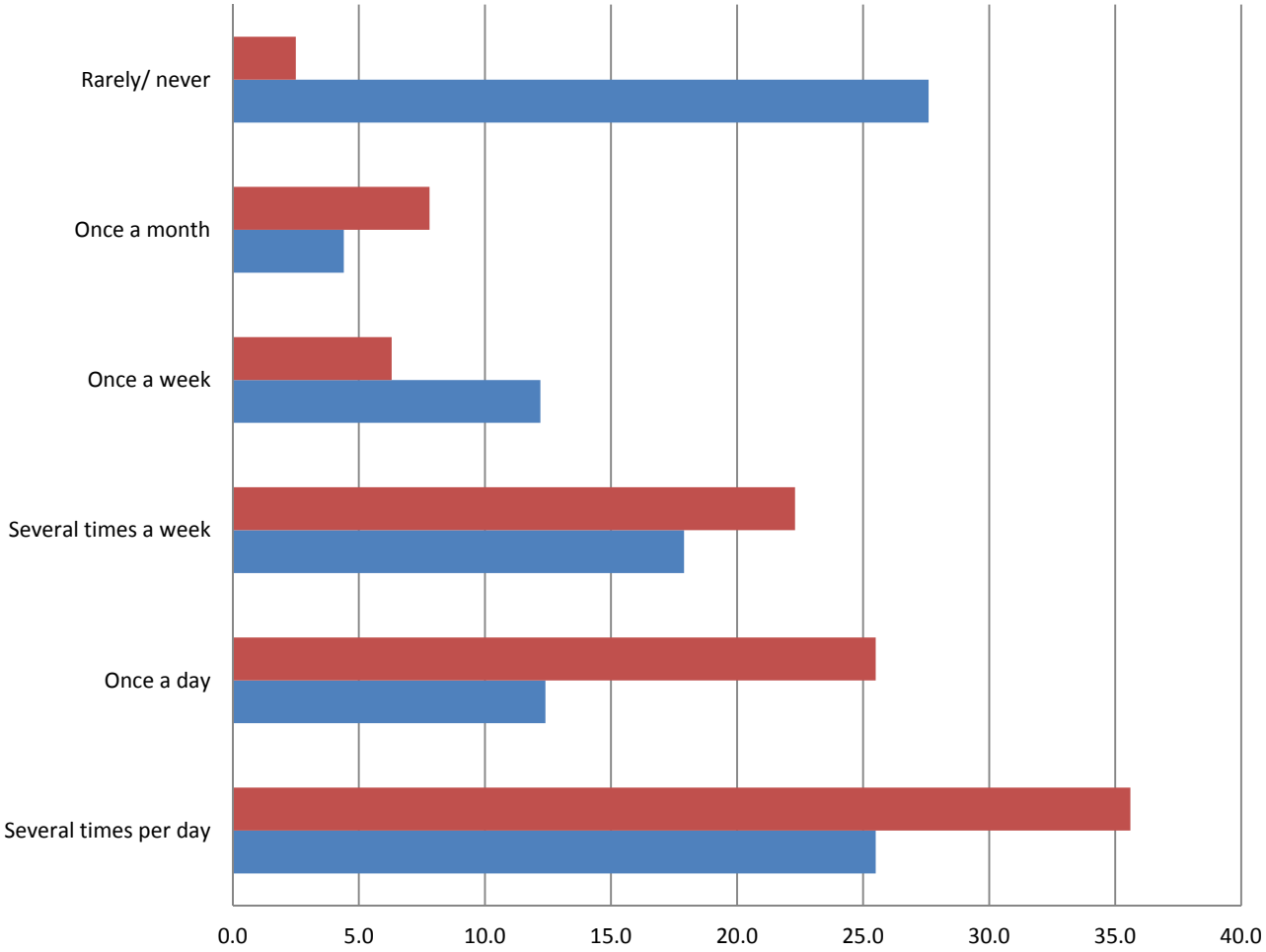


	Shop online	Bank online	Faith based activities	Online education	Look for jobs	Start a business	Engage in politics	Hobbies/ interest groups	Write memoirs	Create photo album	Facebook	Meet people
None	11.2%	9.5%	8.2%	4.5%	6.3%	5.8%	8.2%	7.8%	11.3%	13.4%	13.5%	14.2%
Little	16.5%	16.2%	14.5%	16.8%	16.1%	15.4%	16.3%	18.4%	17.8%	15.2%	16.3%	16.5%
Moderate	28.3%	23.0%	29.1%	33.5%	26.6%	33.6%	32.0%	31.5%	34.4%	29.1%	28.9%	25.0%
Great	44.0%	51.3%	48.2%	45.2%	51.0%	45.2%	43.5%	42.3%	36.5%	42.3%	41.3%	44.3%

These shifts in interest warrant further follow-up to determine whether residents actually acted upon them. Increases in the frequency of Internet use brought about by the training program are evident in Figure 17.

The percent of people accessing the Internet “rarely” or “never” dropped from 27.6 percent to 2.5 percent reflecting a surge in non-users who became users as a result of the training. The proportion of people who used the Internet several times each day increased from 25.5 to 35.6 percent.

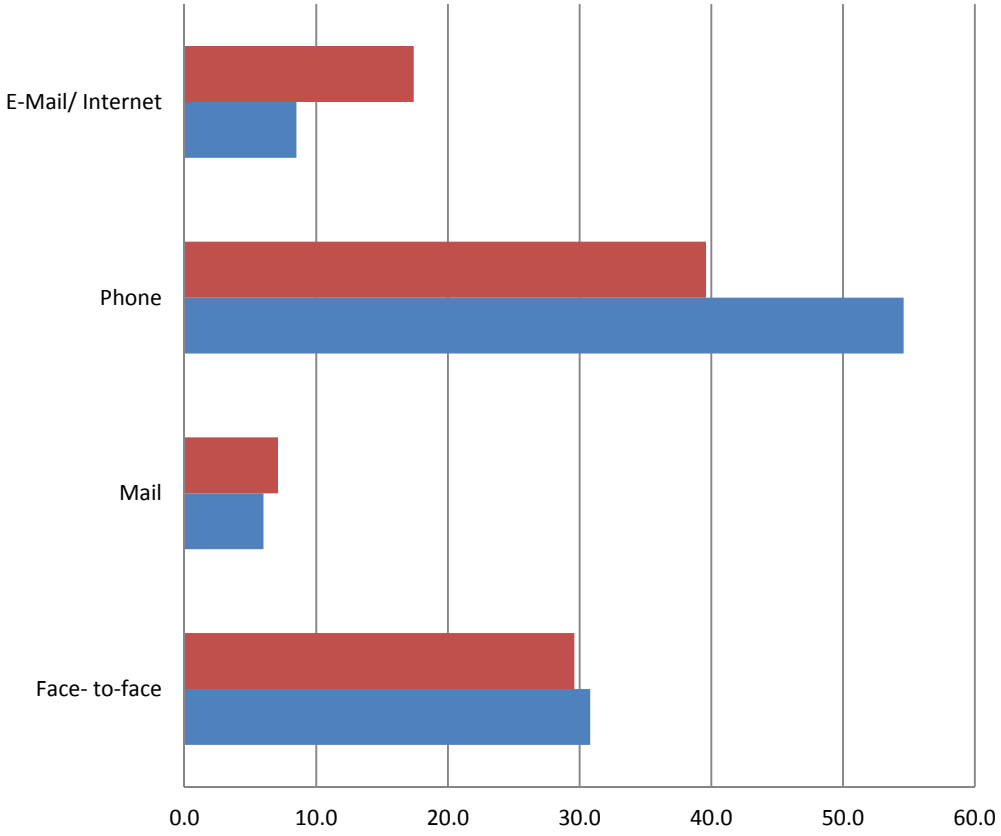
Figure 17
Frequency of Internet Use
Pre-Post
Building Residents



	Several times per day	Once a day	Several times a week	Once a week	Once a month	Rarely/ never
Percent post	35.6	25.5	22.3	6.3	7.8	2.5
Perecnt pre	25.5	12.4	17.9	12.2	4.4	27.6

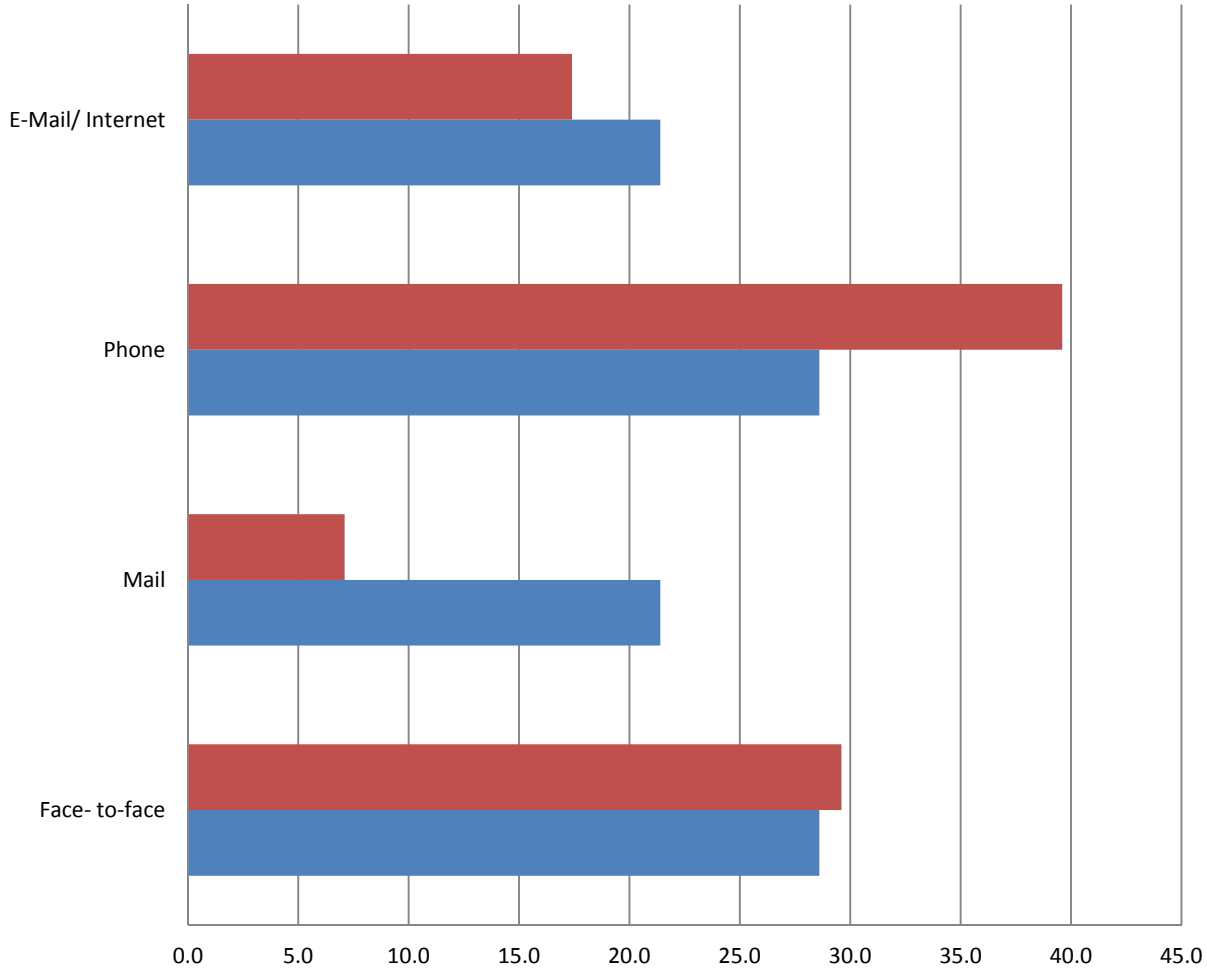
Figure 18 shows that as participants' email and Internet contact with relatives increased, their use of the telephone decreased. A similar pattern is evident with contact with friends (Figure 19).

Figure 18
How Do You Stay in Touch with Relatives?
Pre/Post
Building Residents



	Face- to-face	Mail	Phone	E-Mail/ Internet
Percent post	29.6	7.1	39.6	17.4
Perecnt pre	30.8	6.0	54.6	8.5

Figure 19
How Do You Stay in Touch with Friends?
Pre/Post
Building Residents



	Face- to-face	Mail	Phone	E-Mail/ Internet
Percent post	29.6	7.1	39.6	17.4
Perecnt pre	28.6	21.4	28.6	21.4

The Lubben Social Network Scale (LSNS) is a short set of questions designed to gauge social isolation by measuring perceived social support that people receive receive from family and friends.[7] The LSNS was embedded in the seven-page BTOP Survey of Computer and Internet Use and the email follow-up questionnaire. The results from the LSNS are provided in Table 8.

[7] Lubben, J., Gironda, M. (2004). Measuring social networks and assessing their benefits. In Social Networks and Social Exclusion: Sociological and Policy Perspectives. Eds. Phillipson, C., Allan, G., Morgan, D. Ashgate.

Table 8
Lubben Social Network Scale

		How many relatives (friends) do you . . .	None	1	2	3-4	5-8	9+
Pre	Relatives	see or hear from at least once a month?	8.8	8.0	19.2	30.4	15.2	18.4
		feel at ease with that you can talk about private matters?	16.8	13.6	24.0	28.0	8.8	8.8
		feel close to such that you could call on them for help?	8.1	17.1	30.9	27.6	10.6	5.7
	Friends	see or hear from at least once a month?	3.2	10.5	21.0	29.8	12.1	23.4
		feel at ease with that you can talk about private matters?	16.1	16.9	29.0	28.2	4.8	4.8
		feel close to such that you could call on them for help?	9.5	20.6	31.7	27.0	6.3	4.8
Post	Relatives	see or hear from at least once a month?	7.0	8.1	19.3	30.5	17.5	17.6
		feel at ease with that you can talk about private matters?	9.8	11.5	26.5	28.3	11.1	12.8
		feel close to such that you could call on them for help?	6.1	16.4	30.2	29.2	12.5	9.9
	Friends	see or hear from at least once a month?	2.0	8.3	20.3	31.1	13.2	25.1
		feel at ease with that you can talk about private matters?	10.2	11.6	29.5	31.3	10.3	7.1
		feel close to such that you could call on them for help?	5.3	15.2	29.2	31.5	11.2	7.6

A close examination of the responses to the LSNS questions reveals that program participants reported greater contact with friends and relatives. This strongly suggests that the participants increased contacts by electronic means such as email, skype, or Internet telephone. The statistical summary below shows that the average Lubben score prior to training of 15.28 increased by 5.19 basis points to 20.47 at six-month follow-up. This change is statistically significant, meaning that the observed difference did not occur due to random fluctuation.

Paired Samples *t*-test

	Mean	S.D.	S.E. Mean
Prior to Training	15.28	6.42	.339
6-Month Follow-up	20.47	6.29	.331
Difference	5.19	1.22	.065

t=80.18; d.f.=155; *p*=.000

Finding 15: Of the building residents who enrolled in the training program, 86.8 percent had experience using computers, 82.8 percent had experience using the Internet, 35.3 percent had a computer at home, and 50.8 percent had Internet access. These findings are at odds with the assumptions made in the BTOP grant.

Finding 16: Cost was the most commonly expressed barrier to computer and Internet access among building residents enrolling in the training program.

Finding 17: Program participants experienced significant gains in computer and Internet skill level resulting from the training program. The skill gains were particularly large for more advanced skills.

Finding 18: Program participants expressed greatly increased interest in Internet applications, particularly applications that offer convenience. The training program increased participants' interest in a wide range of Internet applications.

Finding 19: Changes in the more economically-focused web-based applications depict a substantial increase in interest in looking for a job, starting a business, and pursuing online education. These new-found economic interests warrant further follow-up to determine whether residents actually acted upon them.

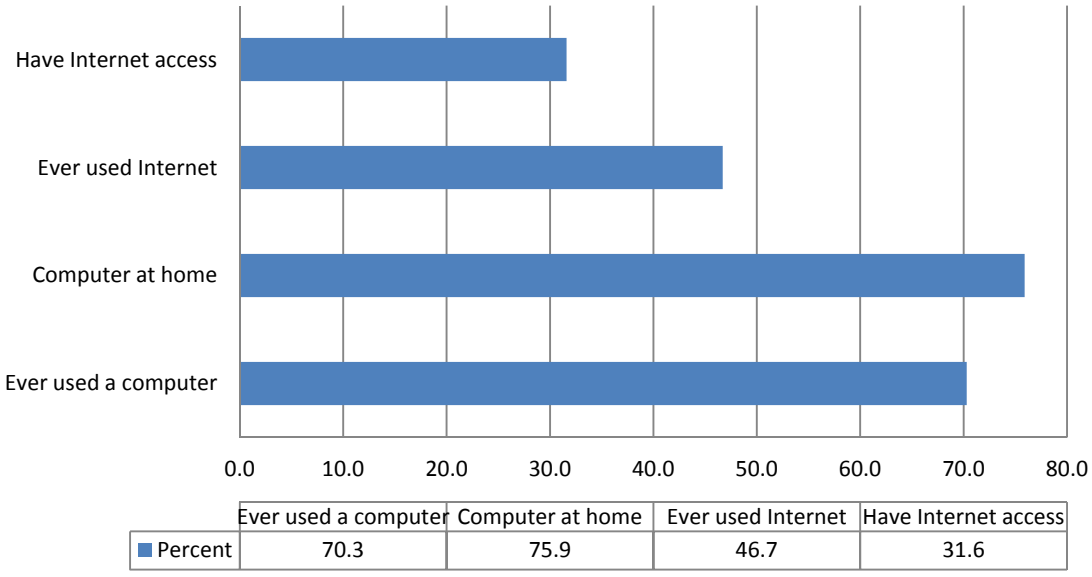
Finding 20: Program participants' level of social participation increased after completing the training program.

Building Residents Over 60 Years of Age.

An important target group for the computer training program is people over 60 years of age. The following analysis focuses on the responses of building residents who were 60 years of age or older at the time they entered the computer training. The figures presented are based on seven-page baseline survey results from the 110 building residents in that age group compared to the follow-up survey results from 25 building residents. A number of differences are evident between this population and the characteristics of all of the building residents.

Figure 20 shows that while fewer elders reported ever having used a computer (70.3 percent), far more reported having a computer at home (75.9 percent). This is probably because one elder in some two elder households used computers and the other did not. A total of 46.7 percent had experience using the Internet but only 31.6 percent had a regular source of Internet access.

Figure 20
Initial Survey of Computer and Internet Use
Building Residents (60+ Years Old)

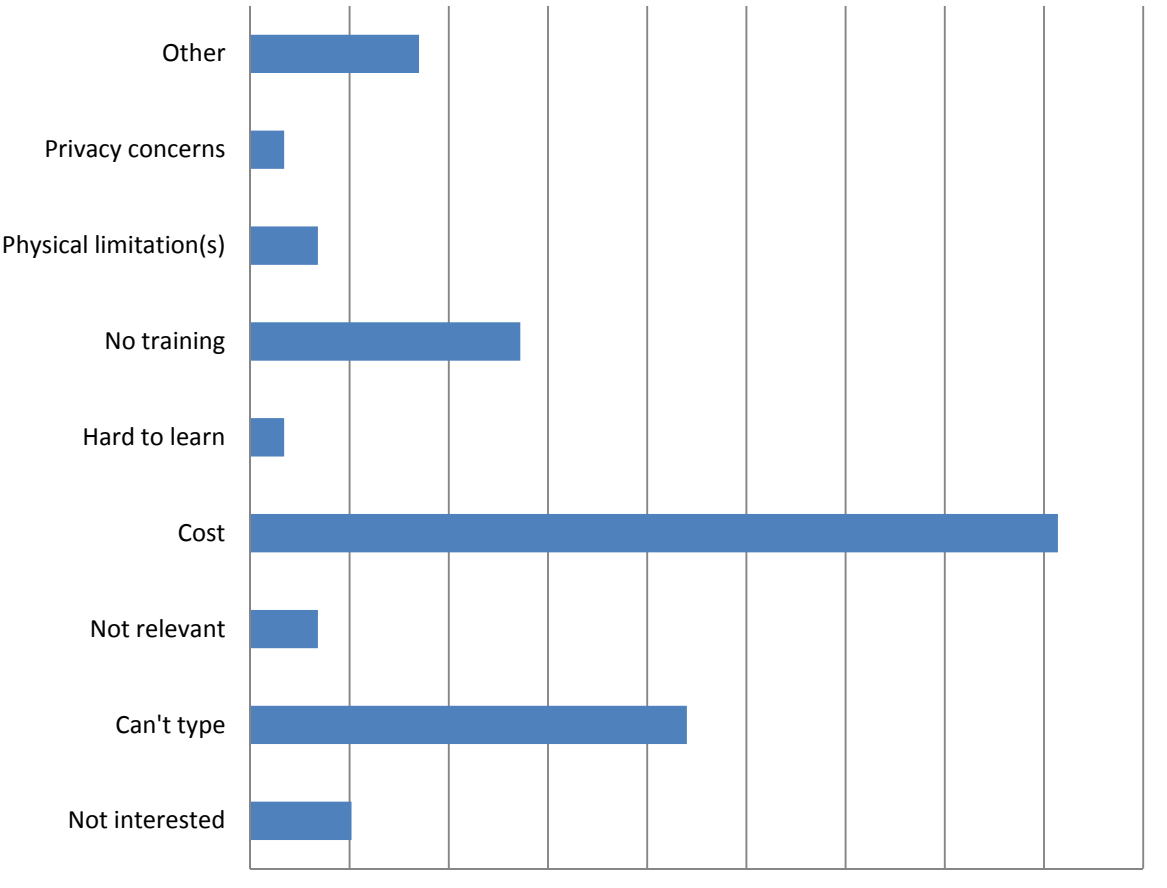


	Ever used a computer	Computer at home	Ever used Internet	Have Internet access
Percent	70.3	75.9	46.7	31.6

There are a number of possible explanations for these findings, but the most probable reason so few reported having Internet access while so many reported having a computer is that the seniors are more likely to have unnetworked computers, but less likely than their younger counterparts to have and use internet enabled smart phones.

The predominant reason given for not using computers is cost and the inability to type (Figure 21). These results mirror those of the entire building resident population of 37.0 and 34.4 percent, respectively, for the same reasons.

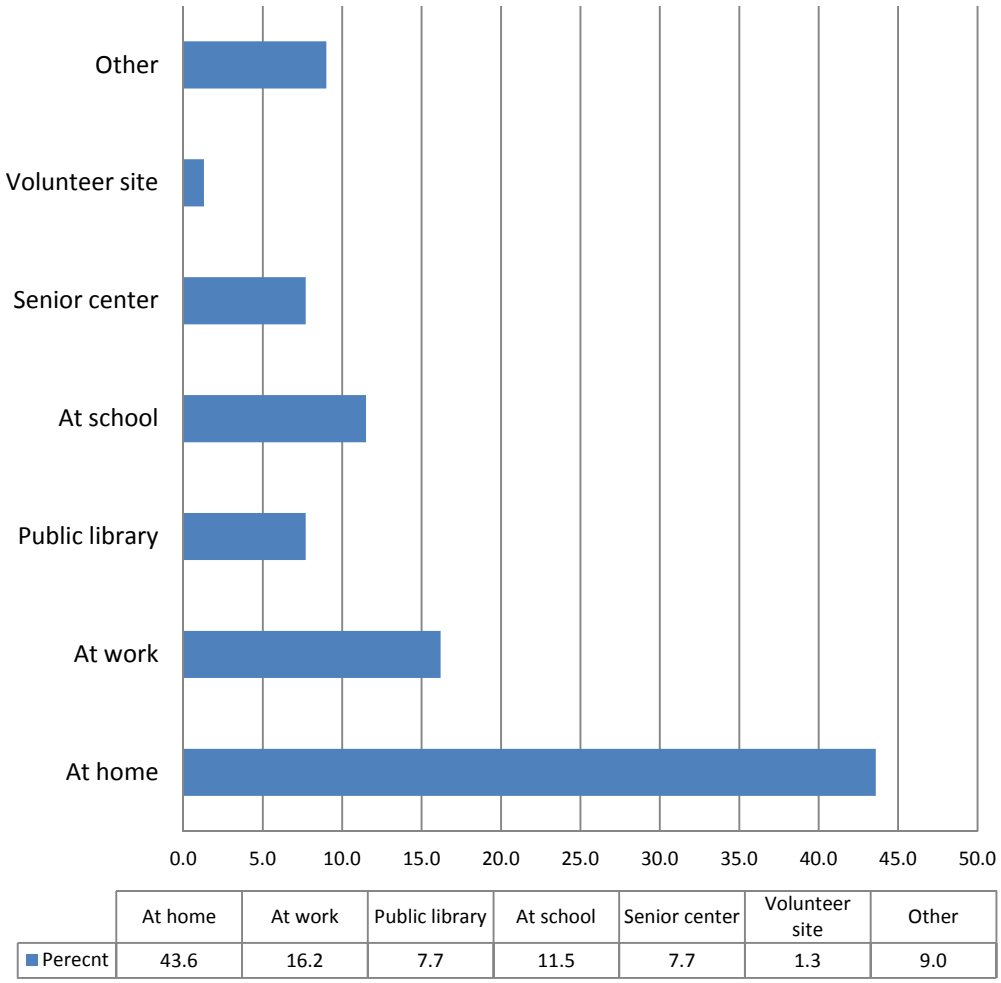
Figure 21
Reason Not Using Computers
Building Residents (60+ years old)



	Not interested	Can't type	Not relevant	Cost	Hard to learn	No training	Physical limitation(s)	Privacy concerns	Other
Perecnt	5.1	22.0	3.4	40.7	1.7	13.6	3.4	1.7	8.5

While the percentage of residents 60 years of age and older who used computers at home is similar to that of all building residents (43.6 percent compared to 44.4 percent), the proportion who used computers at school is less than one-half (11.5 percent compared to 23.5 percent). The percent of older residents accessing computers at senior centers is understandably higher, with 7.7 percent reporting the used computers at such facilities compared to 4.2% for all building residents. Figure 22 presents this data for residents 60 years of age and older.

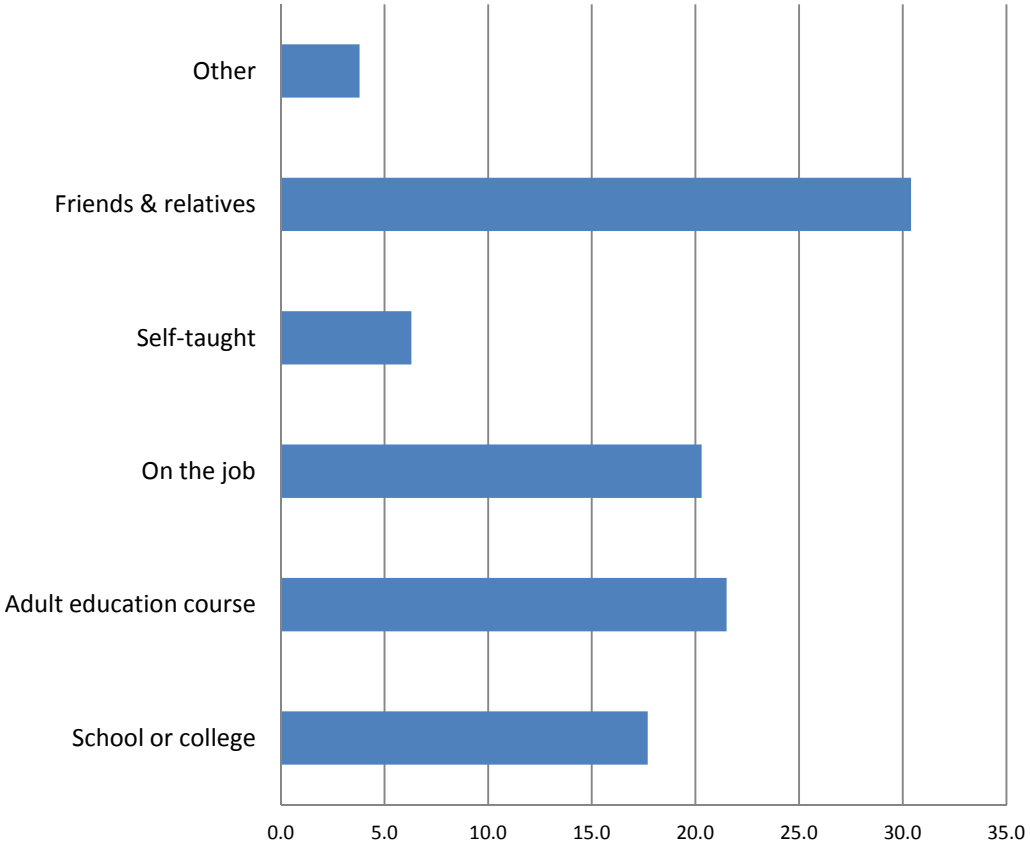
Figure 22
Place Where Use Computers
Building Residents (60+ years old)



	At home	At work	Public library	At school	Senior center	Volunteer site	Other
Perecnt	43.6	16.2	7.7	11.5	7.7	1.3	9.0

A noteworthy difference is evident in where seniors learned to use computers compared to the building population as a whole. Fewer people 60 and older were self-taught or learned at school or college, while far more elders learned on the job: 20.3 percent for seniors compared to 11.2 percent for the general building population (Figure 23).

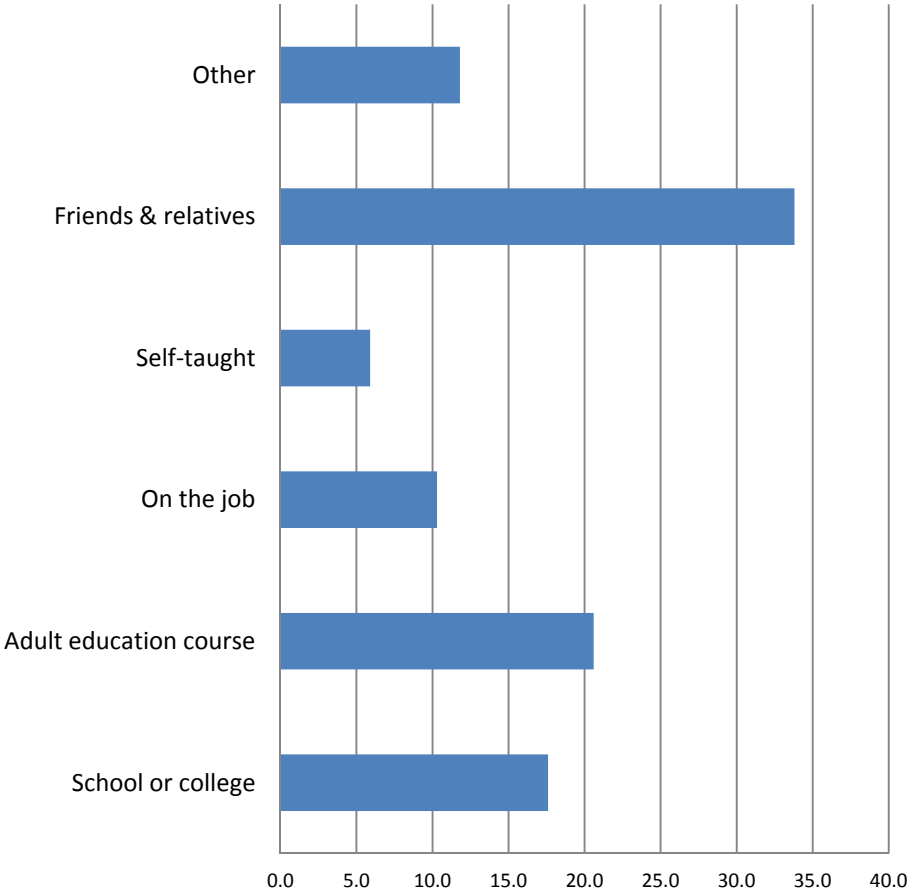
Figure 23
Learned to Use the Computer
Building Residents (60+ years old)



	School or college	Adult education course	On the job	Self-taught	Friends & relatives	Other
Perecnt	17.7	21.5	20.3	6.3	30.4	3.8

Similarly, fewer seniors reported being self-taught Internet users (5.9 percent) compared to the overall building population of 10.7 percent, while 20.6 percent of the older residents learned through an adult education course compared to 11.0 percent of all building residents (Figure 24).

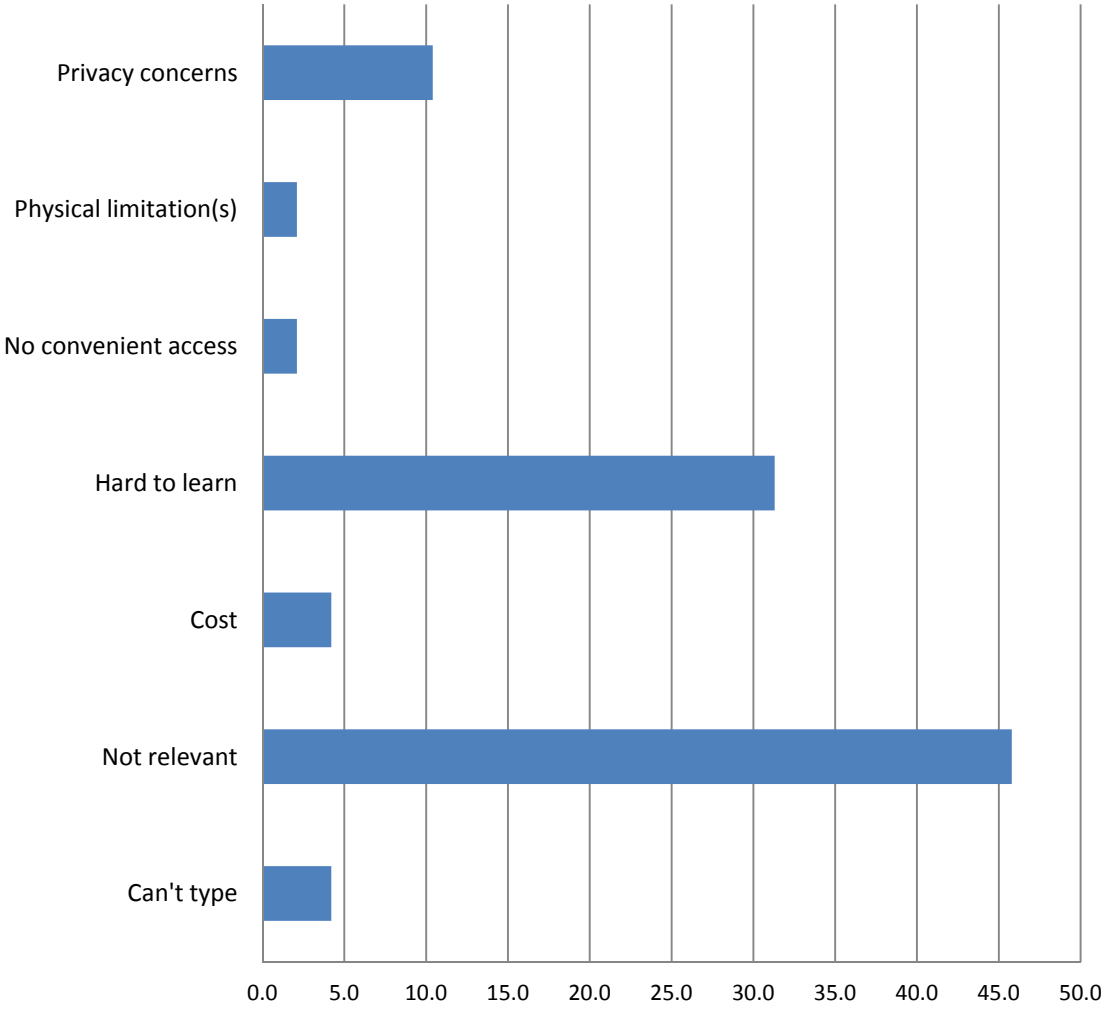
Figure 24
Learned to Use the Internet
Building Residents (60+ years old)



	School or college	Adult education course	On the job	Self-taught	Friends & relatives	Other
Perecnt	17.6	20.6	10.3	5.9	33.8	11.8

There is a significant difference in the reasons given for not using the Internet between seniors (Figure 25) and the general building population. While only 20.6 percent of the general population indicated that they thought Internet skills were hard to learn, 31.3 percent of seniors expressed concerns about the difficulty of learning to use the Internet. Only slightly more seniors, 45.8 percent, believed the Internet was not relevant when compared to all building residents (41.8 percent).

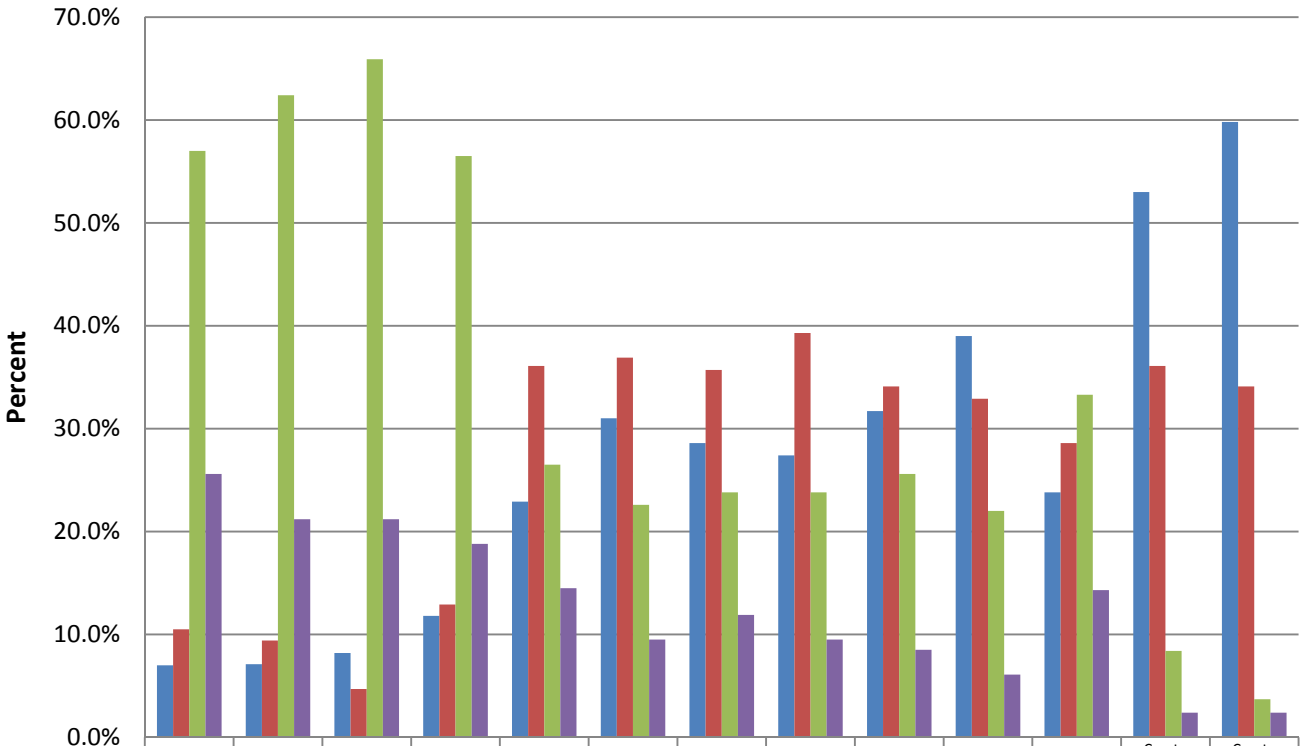
Figure 25
Reason Not Using Internet
Building Residents (60+ years old)



	Can't type	Not relevant	Cost	Hard to learn	No convenient access	Physical limitation(s)	Privacy concerns
Percent	4.2	45.8	4.2	31.3	2.1	2.1	10.4

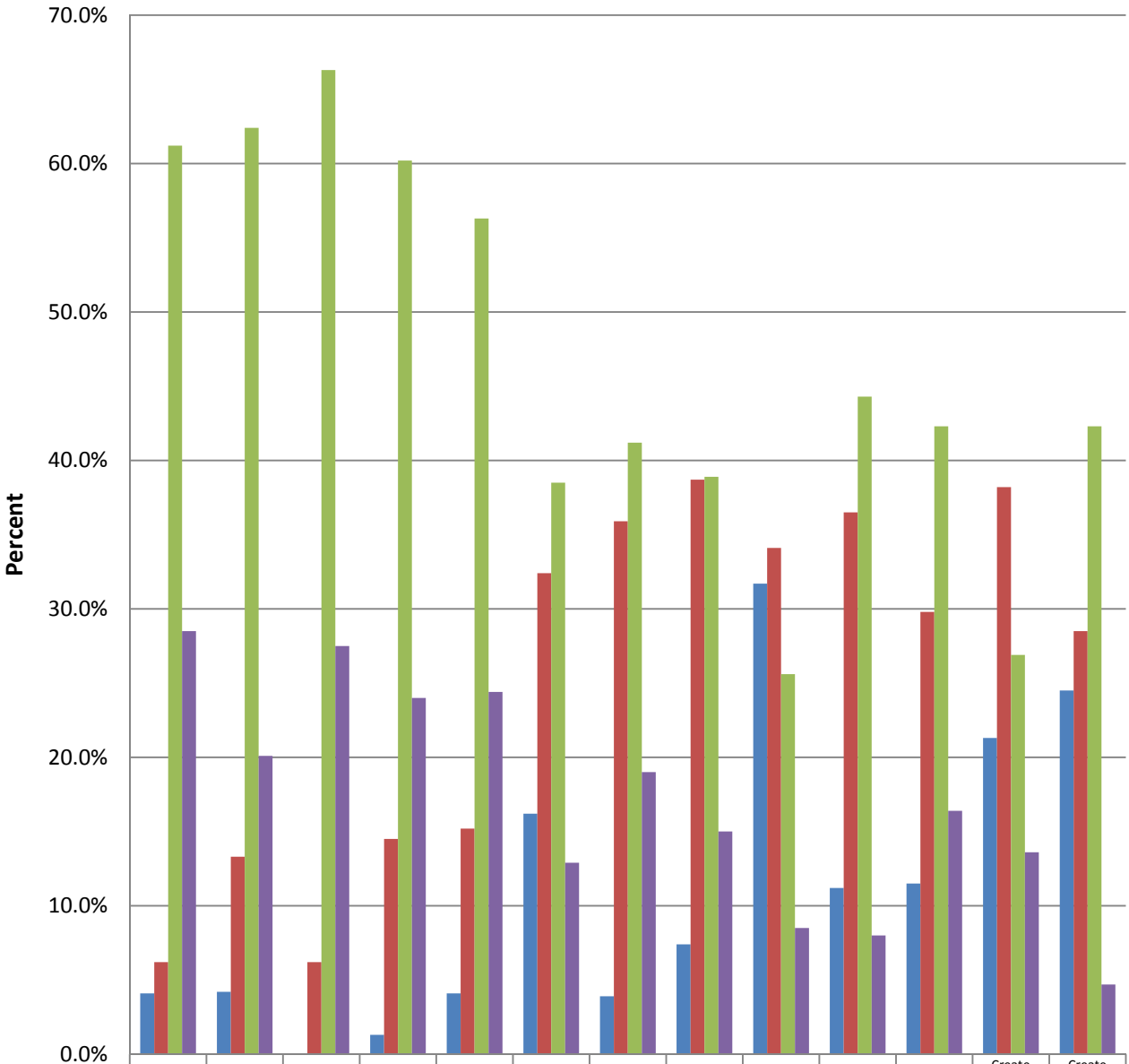
Figures 26 and 27 show the self-assessment of computer skills of building residents 60 and older. Similar to the findings from the general building population, the skill gains reported by the seniors are consistently positive with an average gain in computer skills of 21.4 percent. Further, as with the overall building population, there was little improvement in reported ability to perform simpler tasks such as turning on a computer or mouse pointing and much more substantial increases in the more advanced skills such as document editing and spread sheet and power point use. The reported skill gains spanned the entire range of tasks in a pattern similar to that seen for the general building population. The only significant difference was that very few seniors indicated the ability to teach others.

Figure 26
Self-Assessed Computer Skills Prior to Training
Building Residents (60+ years old)



	Turn on computer	Type on a keyboard	Point with mouse	Open a window	Open an application	Create a document	Save a document	Open a document	Edit a document	Cut, copy and paste	Print	Create spread sheet	Create Power Point
Not at all	7.0%	7.1%	8.2%	11.8%	22.9%	31.0%	28.6%	27.4%	31.7%	39.0%	23.8%	53.0%	59.8%
With help	10.5%	9.4%	4.7%	12.9%	36.1%	36.9%	35.7%	39.3%	34.1%	32.9%	28.6%	36.1%	34.1%
On own	57.0%	62.4%	65.9%	56.5%	26.5%	22.6%	23.8%	23.8%	25.6%	22.0%	33.3%	8.4%	3.7%
Can teach others	25.6%	21.2%	21.2%	18.8%	14.5%	9.5%	11.9%	9.5%	8.5%	6.1%	14.3%	2.4%	2.4%

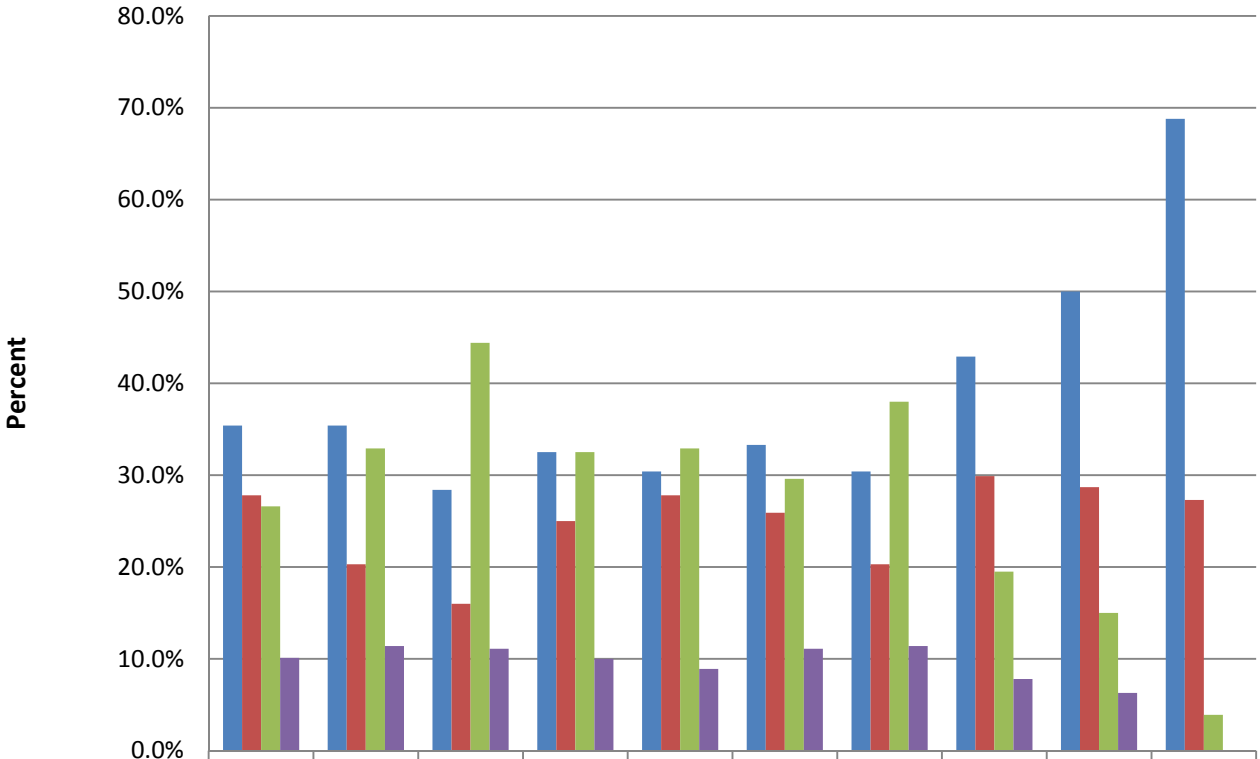
Figure 27
Self-Assessed Computer Skills Six Months After Training
Building Residents (60+ years old)



	Turn on computer	Type on a keyboard	Point with mouse	Open a window	Open an application	Create a document	Save a document	Open a document	Edit a document	Cut, copy and paste	Print	Create spread sheet	Create Power Point
Not at all	4.1%	4.2%	0.0%	1.3%	4.1%	16.2%	3.9%	7.4%	31.7%	11.2%	11.5%	21.3%	24.5%
With help	6.2%	13.3%	6.2%	14.5%	15.2%	32.4%	35.9%	38.7%	34.1%	36.5%	29.8%	38.2%	28.5%
On own	61.2%	62.4%	66.3%	60.2%	56.3%	38.5%	41.2%	38.9%	25.6%	44.3%	42.3%	26.9%	42.3%
Can teach others	28.5%	20.1%	27.5%	24.0%	24.4%	12.9%	19.0%	15.0%	8.5%	8.0%	16.4%	13.6%	4.7%

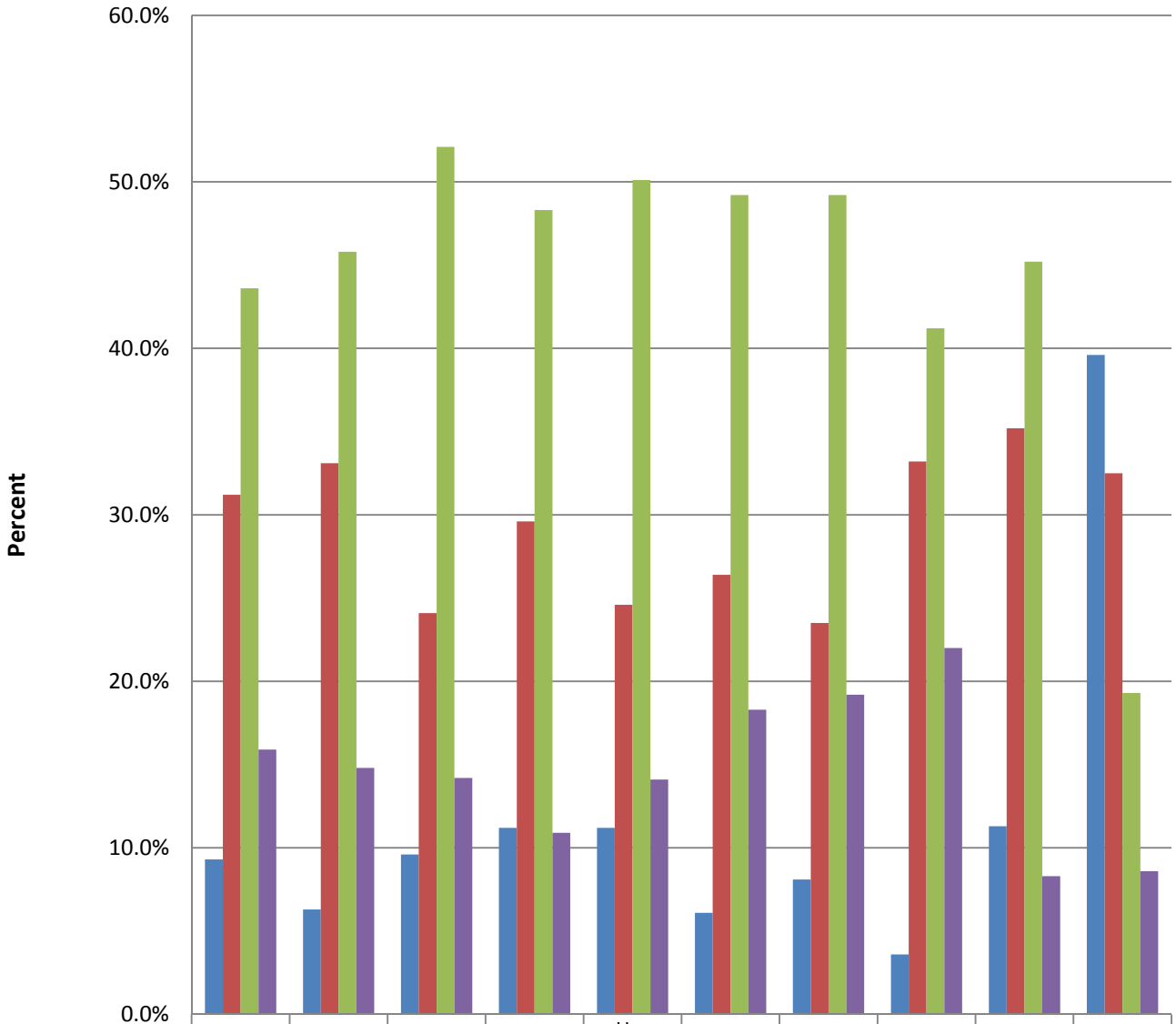
The older residents also reported significant improvements in basic Internet use skills. Once again, these gains mirrored those reported by the overall building population with the exception that the seniors were far less likely to report that they can teach a skill. They indicated a high degree of confidence that they can perform the tasks on their own, but much less so in their ability to teach the skills. Figures 28 and 29 display the pre-post results.

Figure 28
Self-Assessed Internet Skills Prior to Training
Building Residents (60+ years old)



	Enter a URL	Go to Web page	Use scroll bars	Use search engine	Use browser back button	Open an email	Reply to an email	Attache message to email	Use online chat	Use Internet phone
Not at all	35.4%	35.4%	28.4%	32.5%	30.4%	33.3%	30.4%	42.9%	50.0%	68.8%
With help	27.8%	20.3%	16.0%	25.0%	27.8%	25.9%	20.3%	29.9%	28.7%	27.3%
On own	26.6%	32.9%	44.4%	32.5%	32.9%	29.6%	38.0%	19.5%	15.0%	3.9%
Can teach others	10.1%	11.4%	11.1%	10.0%	8.9%	11.1%	11.4%	7.8%	6.3%	0.0%

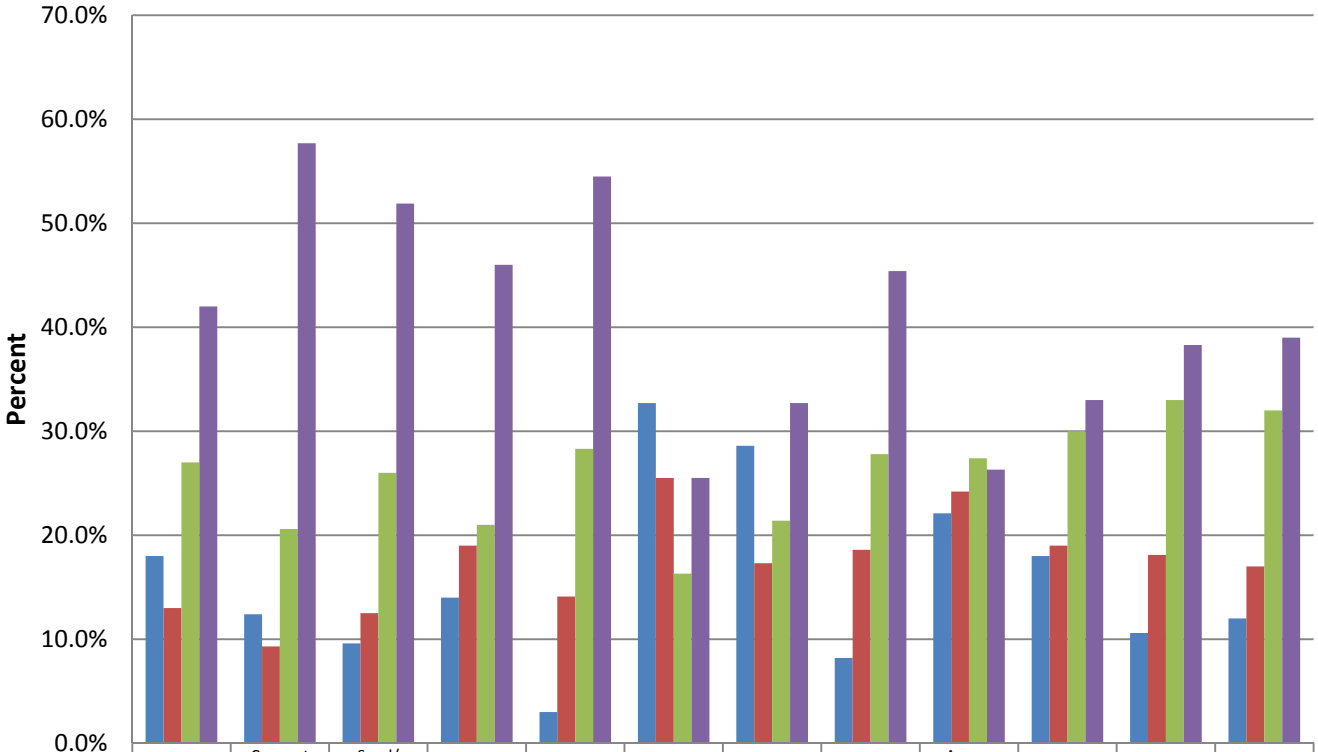
Figure 29
Self-Assessed Internet Skills Six Months After Training
Building Residents (60+ years old)



	Enter a URL	Go to Web page	Use scroll bars	Use search engine	Use browser back button	Open an email	Reply to an email	Attache message to email	Use online chat	Use Internet phone
Not at all	9.3%	6.3%	9.6%	11.2%	11.2%	6.1%	8.1%	3.6%	11.3%	39.6%
With help	31.2%	33.1%	24.1%	29.6%	24.6%	26.4%	23.5%	33.2%	35.2%	32.5%
On own	43.6%	45.8%	52.1%	48.3%	50.1%	49.2%	49.2%	41.2%	45.2%	19.3%
Can teach others	15.9%	14.8%	14.2%	10.9%	14.1%	18.3%	19.2%	22.0%	8.3%	8.6%

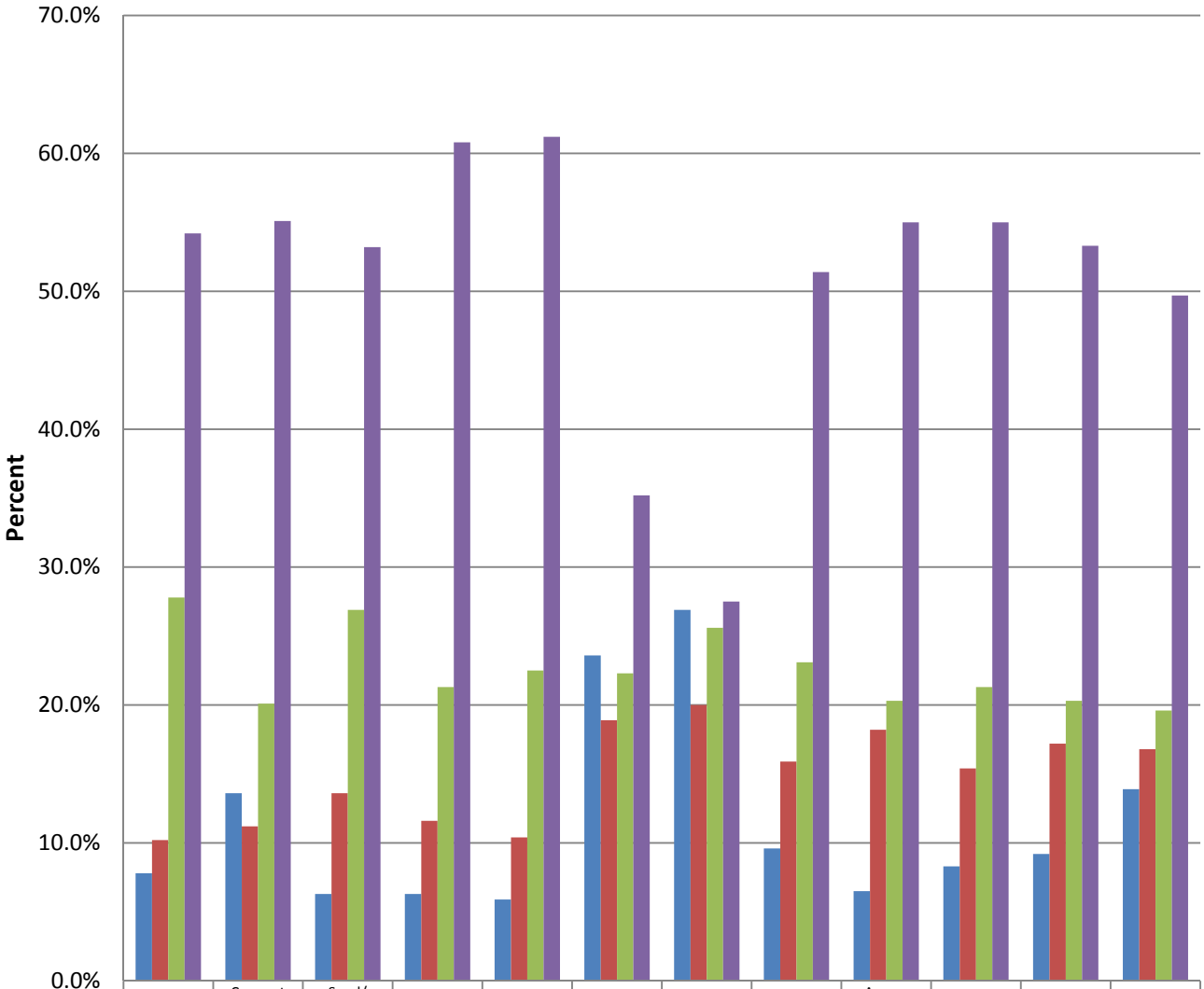
Consistent with the findings of the general population of building residents, seniors expressed considerable growth in their interest in web-based applications between the time they enrolled in the training program and the six-month follow-up survey (Figures 30 through 33). However, the specific interests of the seniors differed in some respects to those of the general building population. For example, older residents were more interested in contact with relatives and photo sharing but less interested in video chat and downloading music. And, as one might expect, the seniors indicated more interest in accessing health care information.

Figure 30
Interest in Web-based Applications Prior to Training
Building Residents (60+ years old)



	Get email account	Connect with relatives	Send/ receive email	Share photos	Web search	Internet Video	Download music	View news	Access public programs	Genealogy	Health care information	Online gaming
None	18.0%	12.4%	9.6%	14.0%	3.0%	32.7%	28.6%	8.2%	22.1%	18.0%	10.6%	12.0%
Little	13.0%	9.3%	12.5%	19.0%	14.1%	25.5%	17.3%	18.6%	24.2%	19.0%	18.1%	17.0%
Moderate	27.0%	20.6%	26.0%	21.0%	28.3%	16.3%	21.4%	27.8%	27.4%	30.0%	33.0%	32.0%
Great	42.0%	57.7%	51.9%	46.0%	54.5%	25.5%	32.7%	45.4%	26.3%	33.0%	38.3%	39.0%

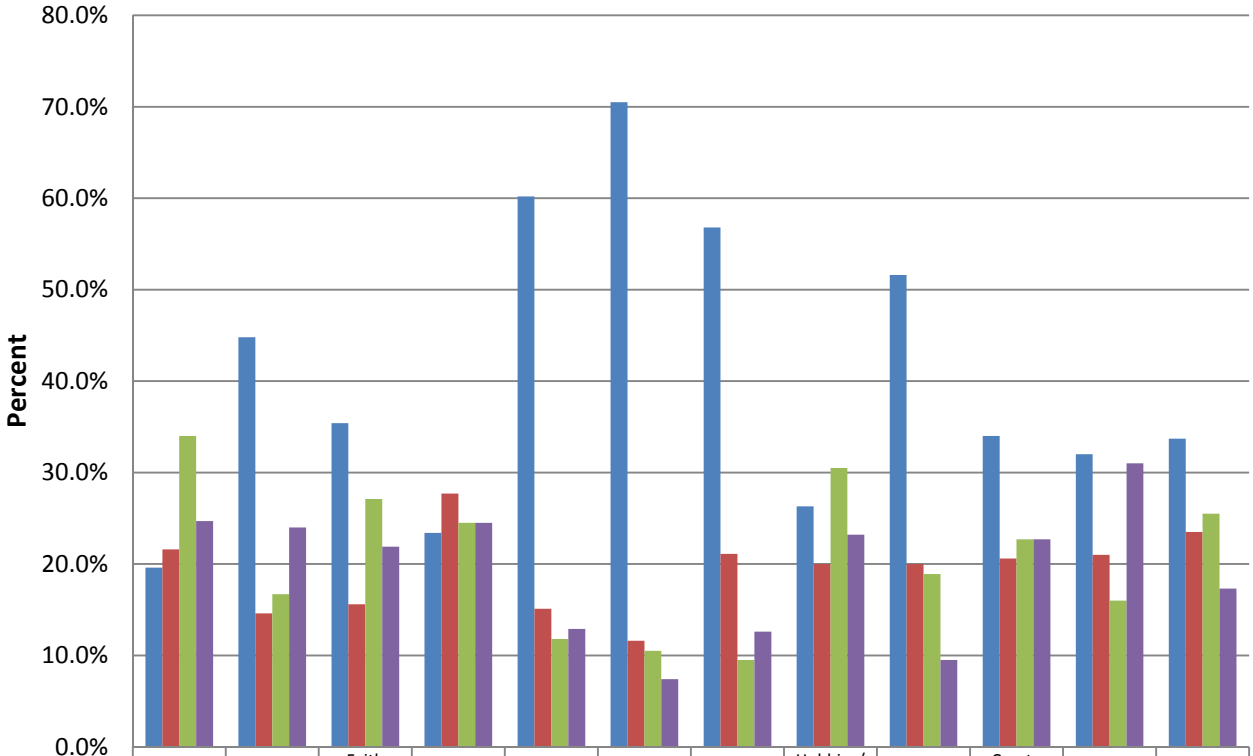
Figure 31
Interest in Web-based Applications Six Months After Training
Building Residents (60+ years old)



	Get email account	Connect with relatives	Send/ receive email	Share photos	Web search	Internet Video	Download music	View news	Access public programs	Genealogy	Health care information	Online gaming
None	7.8%	13.6%	6.3%	6.3%	5.9%	23.6%	26.9%	9.6%	6.5%	8.3%	9.2%	13.9%
Little	10.2%	11.2%	13.6%	11.6%	10.4%	18.9%	20.0%	15.9%	18.2%	15.4%	17.2%	16.8%
Moderate	27.8%	20.1%	26.9%	21.3%	22.5%	22.3%	25.6%	23.1%	20.3%	21.3%	20.3%	19.6%
Great	54.2%	55.1%	53.2%	60.8%	61.2%	35.2%	27.5%	51.4%	55.0%	55.0%	53.3%	49.7%

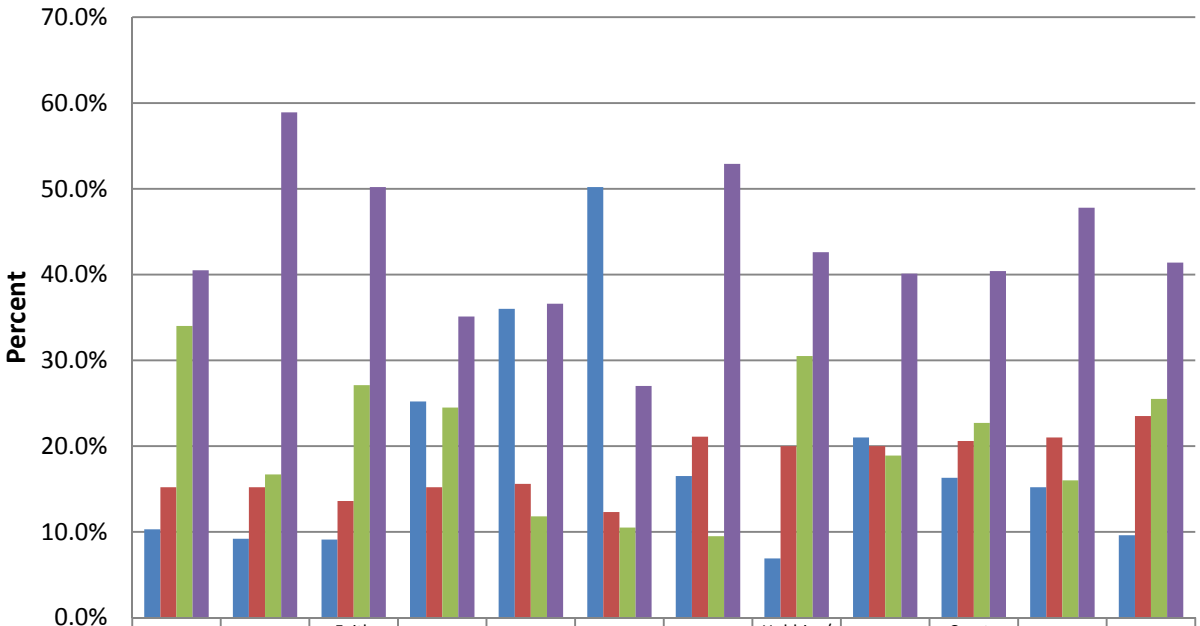
Other areas of difference in expressed interest in Internet applications between seniors and other building occupants are higher levels of interest in faith-based activities, writing memoirs, and interest groups and hobbies. Although seniors overall expressed lower levels of interest in applications related to online education, looking for jobs, and starting a business, significant pre-post differences were evident in key economic-related activities. For example, the percentage of residents 60 and older who expressed great interest in starting a business increased from 7.4 percent to 27.0 percent, and those with a great interest in finding a job increased from 12.9% to 36.6 percent. Online education, often a precursor to looking for a job or starting a business, showed a pre-post increase from 24.5 percent to 35.1 percent in older residents expressing a "great" interest.

Figure 32
Interest in Additional Web-based Applications Prior to Training
Building Residents (60+ years old)



	Shop online	Bank online	Faith based activities	Online education	Look for jobs	Start a business	Engage in politics	Hobbies/ interest groups	Write memoirs	Create photo album	Facebook	Meet people
None	19.6%	44.8%	35.4%	23.4%	60.2%	70.5%	56.8%	26.3%	51.6%	34.0%	32.0%	33.7%
Little	21.6%	14.6%	15.6%	27.7%	15.1%	11.6%	21.1%	20.0%	20.0%	20.6%	21.0%	23.5%
Moderate	34.0%	16.7%	27.1%	24.5%	11.8%	10.5%	9.5%	30.5%	18.9%	22.7%	16.0%	25.5%
Great	24.7%	24.0%	21.9%	24.5%	12.9%	7.4%	12.6%	23.2%	9.5%	22.7%	31.0%	17.3%

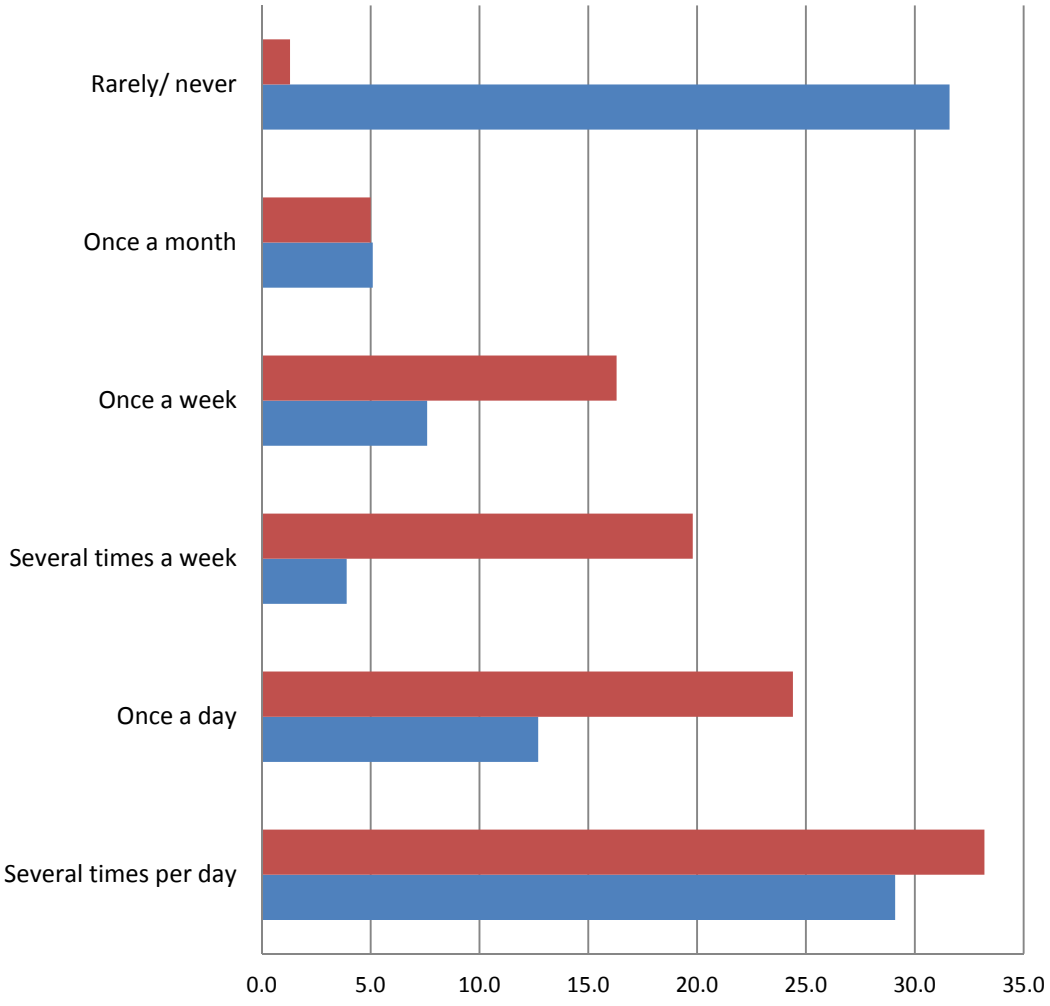
Figure 33
Interest in Additional Web-based Applications Six Months After Training
Building Residents (60+ years old)



	Shop online	Bank online	Faith based activities	Online education	Look for jobs	Start a business	Engage in politics	Hobbies/ interest groups	Write memoirs	Create photo album	Facebook	Meet people
None	10.3%	9.2%	9.1%	25.2%	36.0%	50.2%	16.5%	6.9%	21.0%	16.3%	15.2%	9.6%
Little	15.2%	15.2%	13.6%	15.2%	15.6%	12.3%	21.1%	20.0%	20.0%	20.6%	21.0%	23.5%
Moderate	34.0%	16.7%	27.1%	24.5%	11.8%	10.5%	9.5%	30.5%	18.9%	22.7%	16.0%	25.5%
Great	40.5%	58.9%	50.2%	35.1%	36.6%	27.0%	52.9%	42.6%	40.1%	40.4%	47.8%	41.4%

The number of seniors who reported using the Internet never or rarely went down from 31.6 percent to 1.3 percent, and those who reported accessing the Internet several times per day increased from 29.1 percent to 33.2 percent (Figure 34).

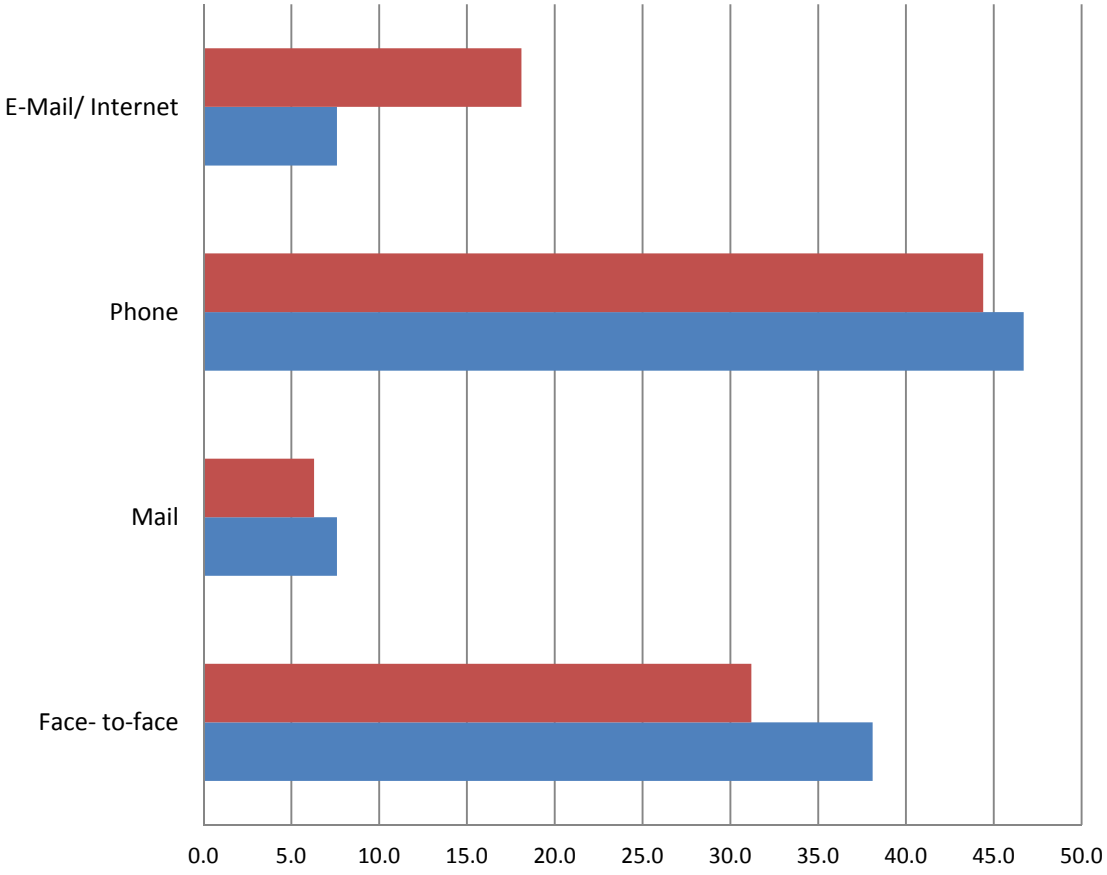
Figure 34
How Often Do You Use the Internet?
Pre/Post
Building Residents (60+ years old)



	Several times per day	Once a day	Several times a week	Once a week	Once a month	Rarely/ never
Percent post	33.2	24.4	19.8	16.3	5.0	1.3
Perecnt pre	29.1	12.7	3.9	7.6	5.1	31.6

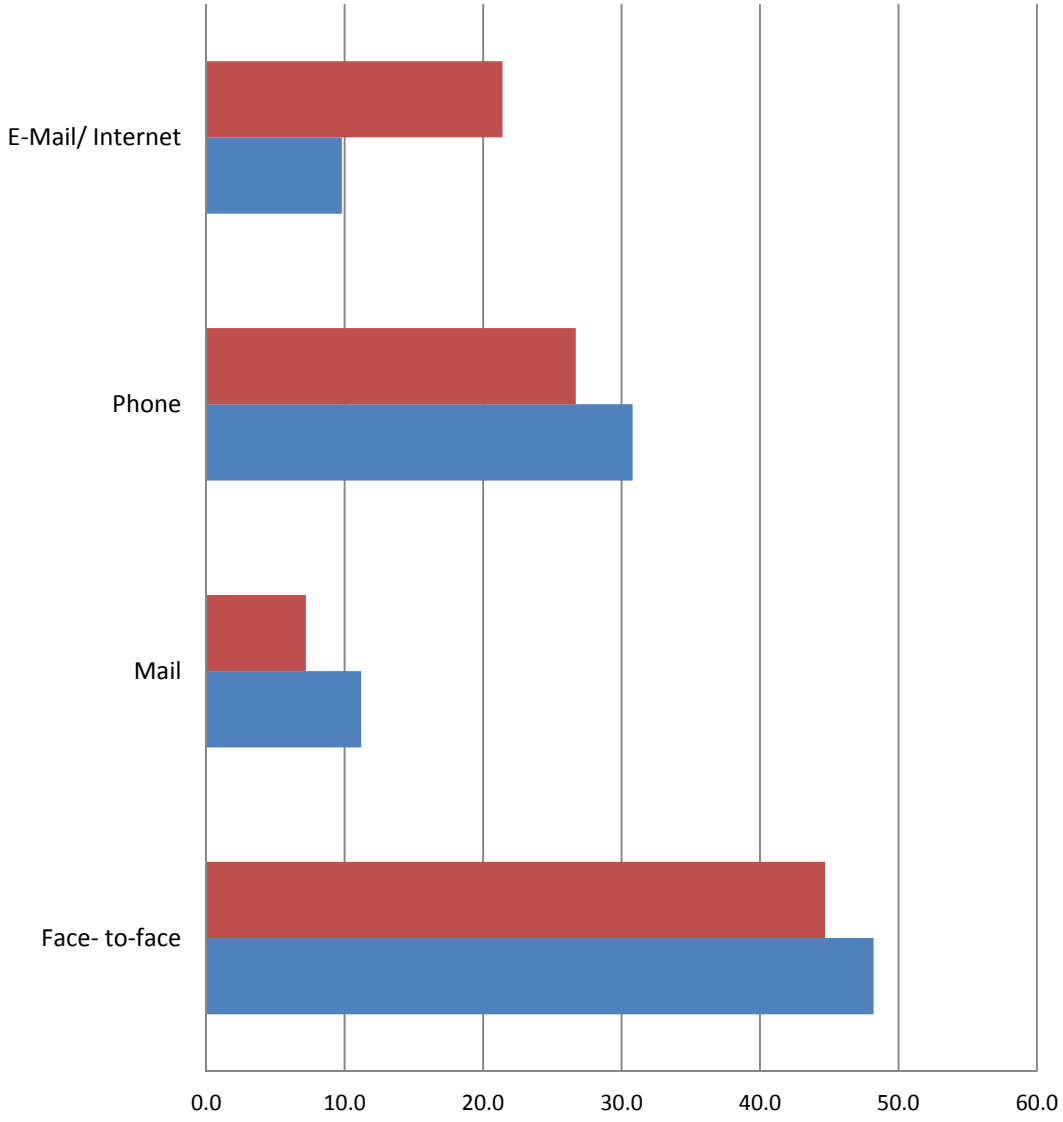
The percentage of senior building residents who reported staying in touch with relatives by email increased from 7.6 percent to 18.1 percent as a result of the training program. Similarly, those using email to stay in touch with friends went up to 21.4 percent from 9.8 percent prior to the training program (Figures 35 and 36).

Figure 35
How Do You Stay in Touch With Relatives?
Pre/Post
Building Residents (60+ years old)



	Face- to-face	Mail	Phone	E-Mail/ Internet
Percent post	31.2	6.3	44.4	18.1
Perecnt pre	38.1	7.6	46.7	7.6

Figure 36
How Do You Stay in Touch with Friends?
Pre/Post
Building Residents (60+ years old)



	Face- to-face	Mail	Phone	E-Mail/ Internet
Percent post	44.7	7.2	26.7	21.4
Perecnt pre	48.2	11.2	30.8	9.8

Finding 21: Building residents who are 60 years old and older were more likely to own computers and less likely to have Internet access than the general population of building residents. This is because the seniors were more likely to own Internet enabled computers and less likely to access the Internet via smart phones.

Finding 22: Building residents who are 60 years and older were less likely to learn to use computers and the Internet on their own. They were more likely to report learning computer and Internet skills in formal settings.

Finding 23: Building residents who are 60 years and older were as likely to show computer and Internet skill improvements as the general building population, but the seniors were far less likely to report that they can teach the skills.

Finding 24: Building residents who are 60 years and older displayed significant increases in interest in the more economically-focused web-based applications including looking for a job, starting a business, and pursuing online education. As with the overall population, these new found economic interests warrant further follow-up to determine whether residents actually acted upon them.

Neighborhood Outreach.

Although originally developed for project participants who lived in the buildings, the NIU evaluation team adapted the seven-page BTOP Survey of Computer and Internet Use for use with neighborhood outreach participants. The surveys were administered immediately prior to the beginning of the training and again approximately six months following graduation from the program. A total of 134 baseline and 30 six-month follow-up questionnaires were received.

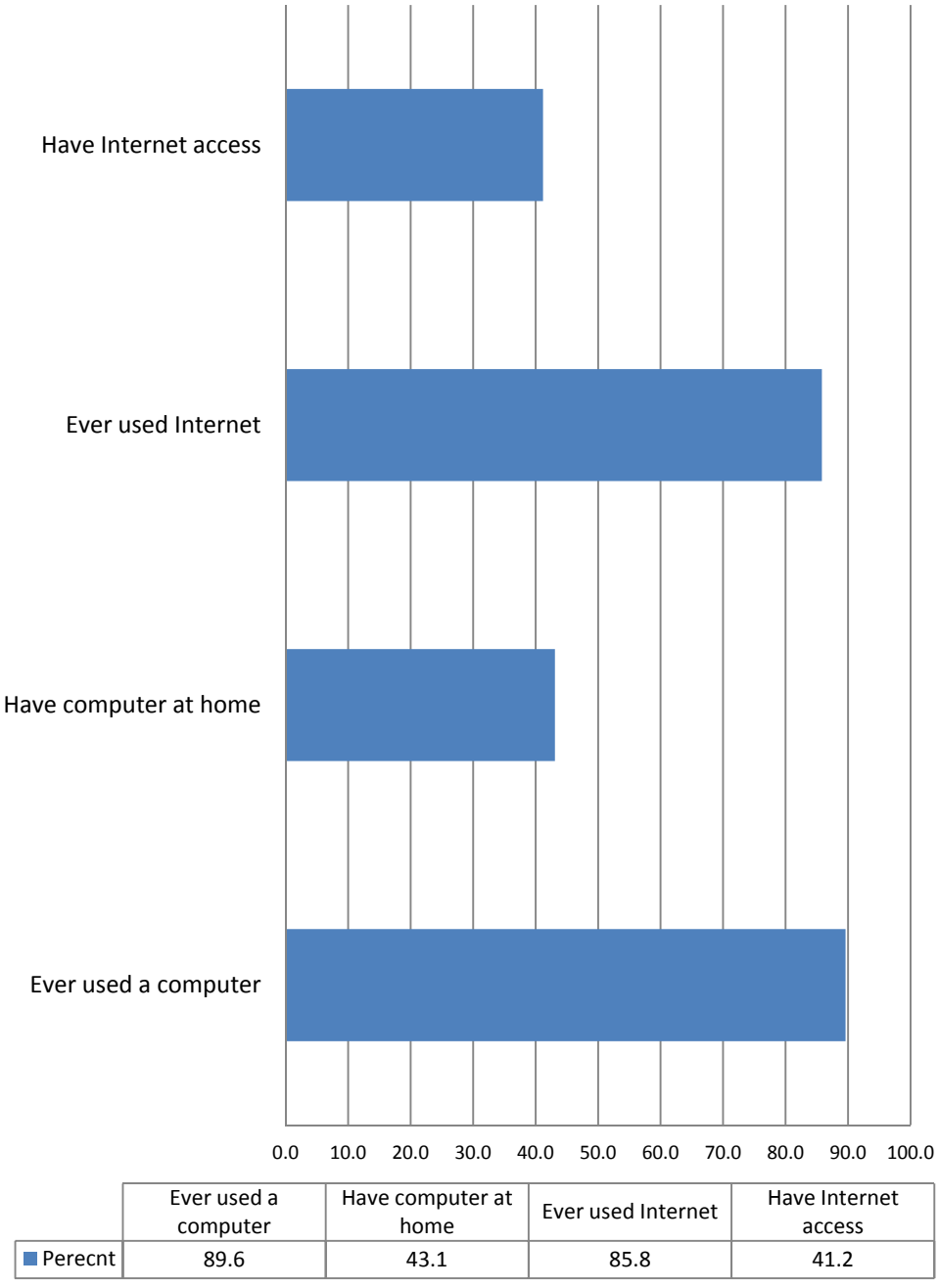
Table 9
Characteristics of Survey Respondents
Neighborhood Outreach

Characteristic	Pre	Post
Gender		
Male	46.3%	47.2%
Female	53.7%	52.8%
Average Age	39.7	39.6
Ethnicity		
African-American	69.7%	70.1%
White	29.5%	29.9%
Hispanic	0.8%	0.0%
Native American	0.0%	0.0%
Educational Attainment		
Less than High School	9.2%	9.6%
High School or GED	21.4%	22.4%
Some College	37.4%	37.9%
College Degree	32.0%	30.1%
Primary Language		
English	58.3%	56.4%
Spanish	0.0%	0.0%
Other	41.7%	43.6%
Income		
Less than $5,000	39.5%	38.6%
$5,000-$15,000	28.2%	29.6%
$15,001-$30,000	29.0%	27.9%
Over $30,000	3.2%	3.9%
Number of Surveys	**134**	**30**

The difference in pre and post results were evaluated using two-sample test of proportions (Z) or paired samples t-test. No statistically significant ($p \geq .05$) differences were detected.

Figure 37 shows that most outreach participants had experience using computers (86.8 percent) and the Internet (82.8 percent) but significantly fewer had a computer at home (35.3 percent) and a regular way to access the Internet (50.8 percent).

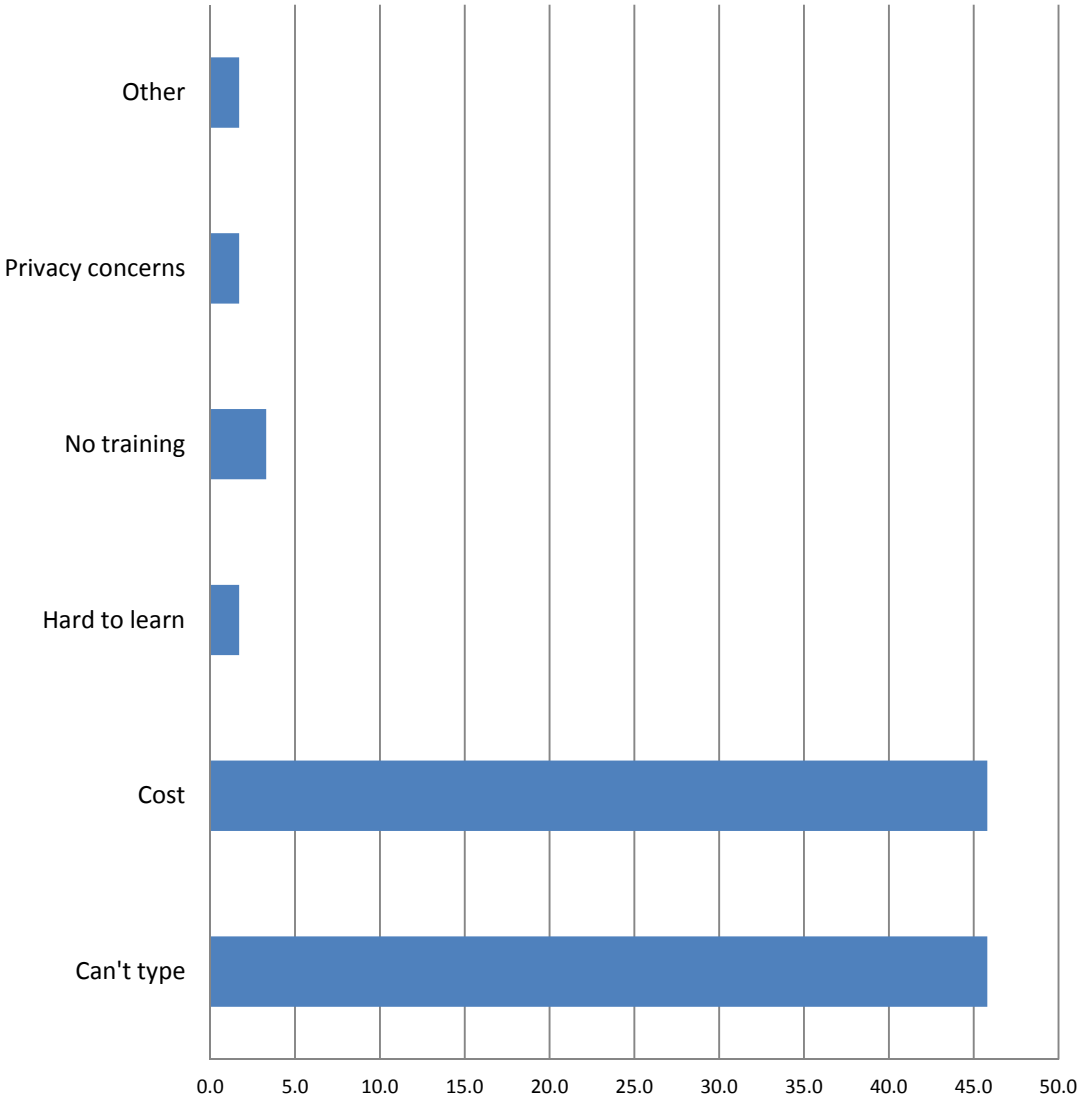
Figure 37
Initial Survey of Computer and Internet Use
Neighborhood Outreach



	Ever used a computer	Have computer at home	Ever used Internet	Have Internet access
Perecnt	89.6	43.1	85.8	41.2

Figure 38 shows that cost and ability to type were the most frequently cited barriers to computer use among the 13.2 percent of people with no prior experience using computers with 45.8 percent reporting these difficulties. The neighborhood outreach participants were less likely to have Internet access than the building residents, 50.8 of whom reported having Internet access but were 5.0 percent more likely to have a computer at home.

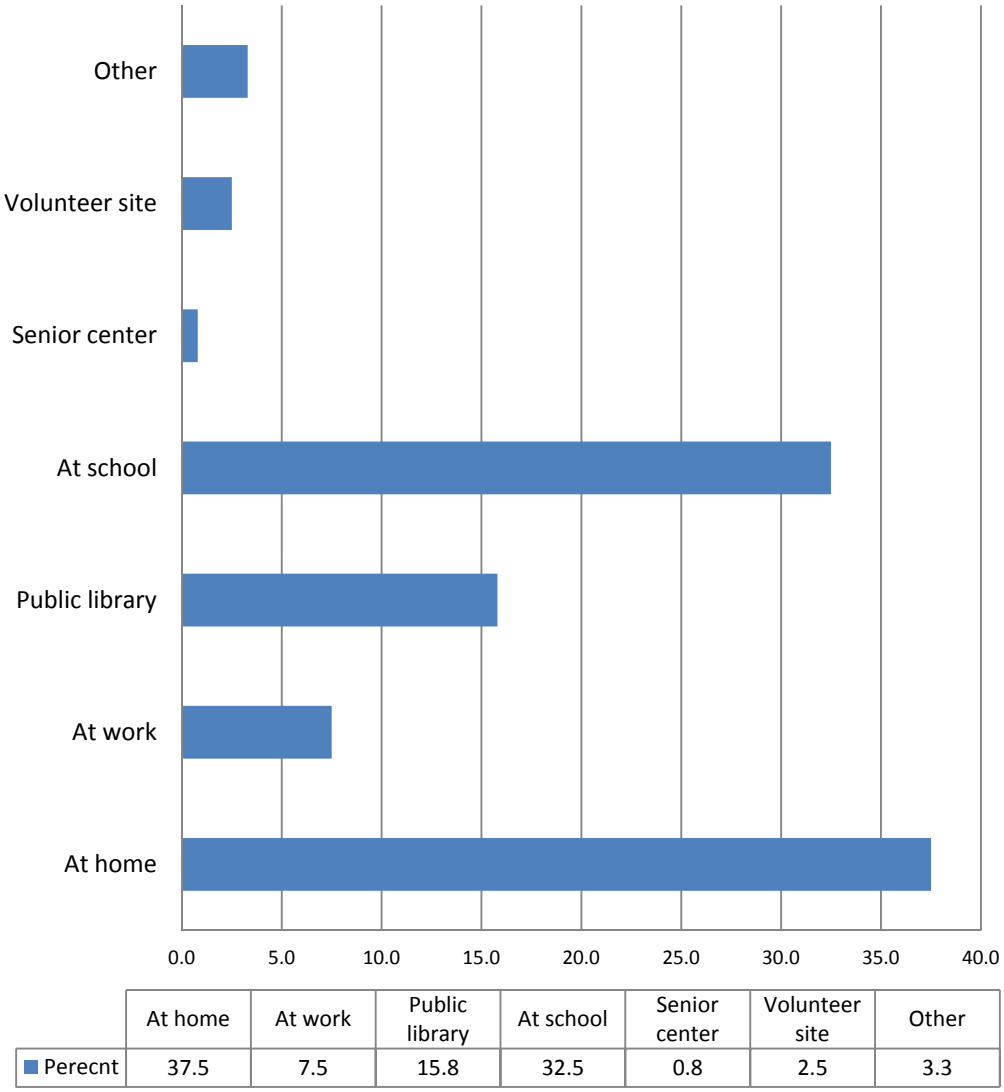
Figure 38
Reason Not Using Computers
Neighborhood Outreach



	Can't type	Cost	Hard to learn	No training	Privacy concerns	Other
Perecnt	45.8	45.8	1.7	3.3	1.7	1.7

Of the neighborhood outreach program participants who had experience using computers (Figure 39), most used them at home or at the home of relatives or friends (37.5 percent) and at school (32.5 percent). Some reported using computers at public libraries (15.8 percent), work (7.5 percent) and at a volunteer site or senior center (3.3 percent). Building residents cited cost (37.0 percent) and the inability to type (34.4 percent) as primary reasons for not using computers, but none indicated they were not interested in computers or found them irrelevant. A total of 7.5 percent of building residents indicated that they were not interested in computers or found them irrelevant. This is an important finding from a programming perspective. The outreach participants appeared to be more motivated to use computers than the building residents.

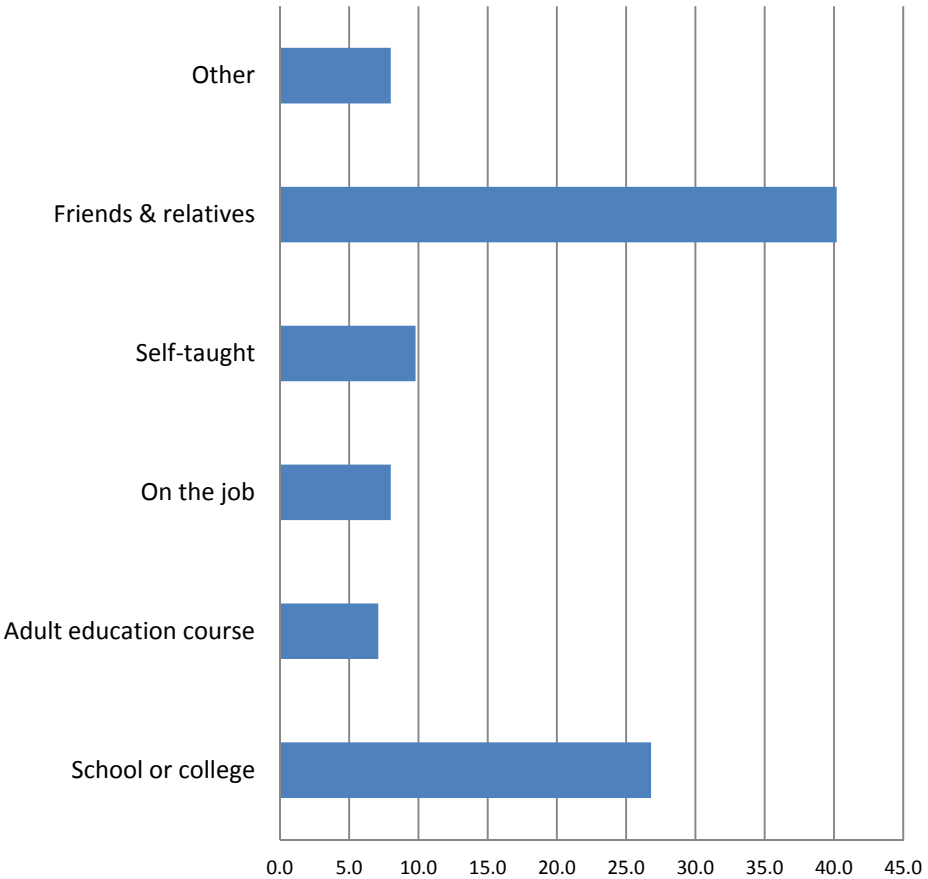
Figure 39
Place Where Use Computers
Neighborhood Outreach



	At home	At work	Public library	At school	Senior center	Volunteer site	Other
Perecnt	37.5	7.5	15.8	32.5	0.8	2.5	3.3

As displayed in Figure 40, neighborhood outreach participants who reported experience using computers learned their computer skills in a variety of settings. Most reported having learned to use computers from friends and relatives (40.2 percent) or in school or at college (26.8 percent). Some reported being self-taught (9.8 percent), having learned on the job (8.0 percent), or in an adult education course (7.1 percent). While the building residents were similarly more likely to use computers at home (44.4%), they were far less likely to have used them at school (23.5%). This is almost certainly due to the different age and income characteristics of the outreach participants compared to the building residents.

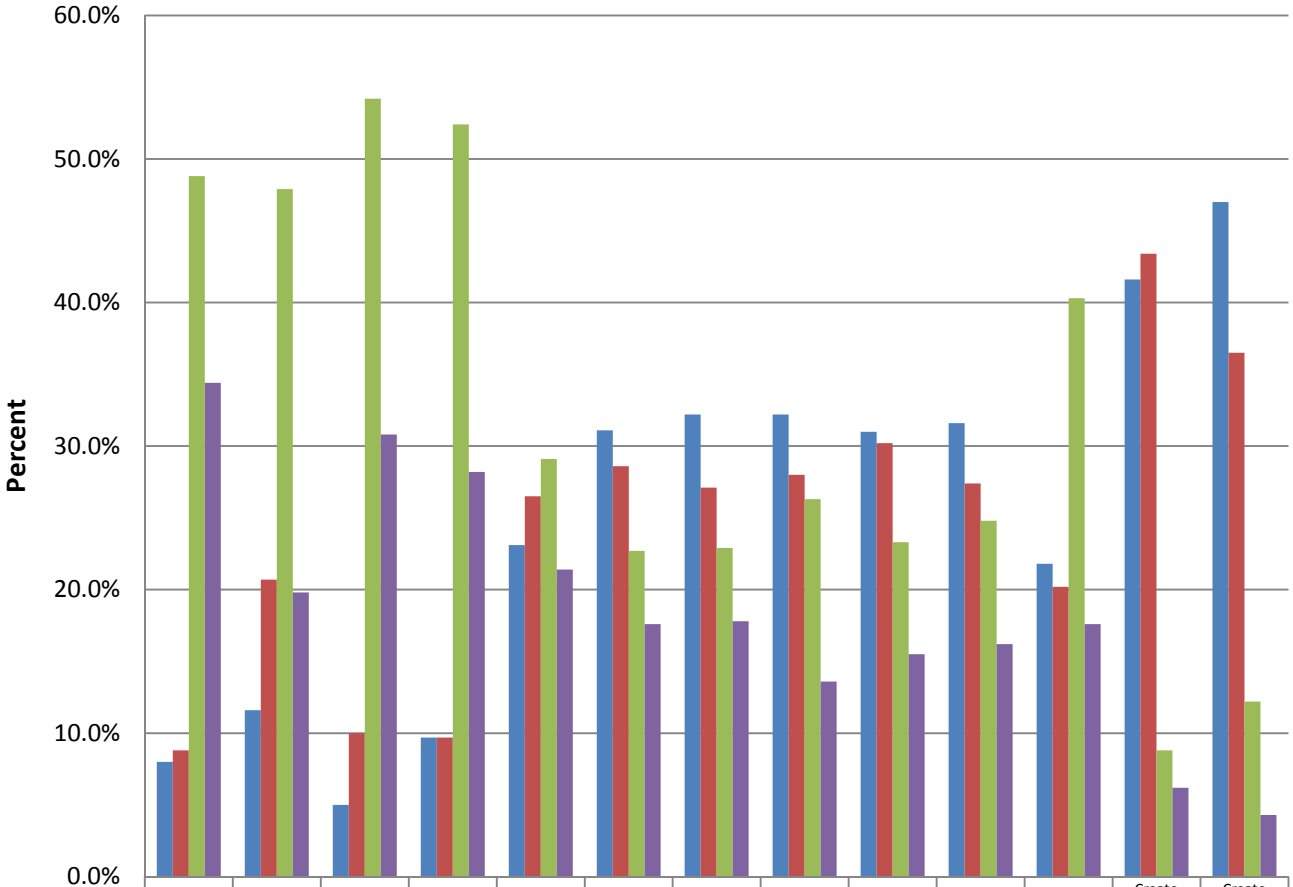
Figure 40
Learned to Use the Computer
Neighborhood Outreach



	School or college	Adult education course	On the job	Self-taught	Friends & relatives	Other
Perecnt	26.8	7.1	8.0	9.8	40.2	8.0

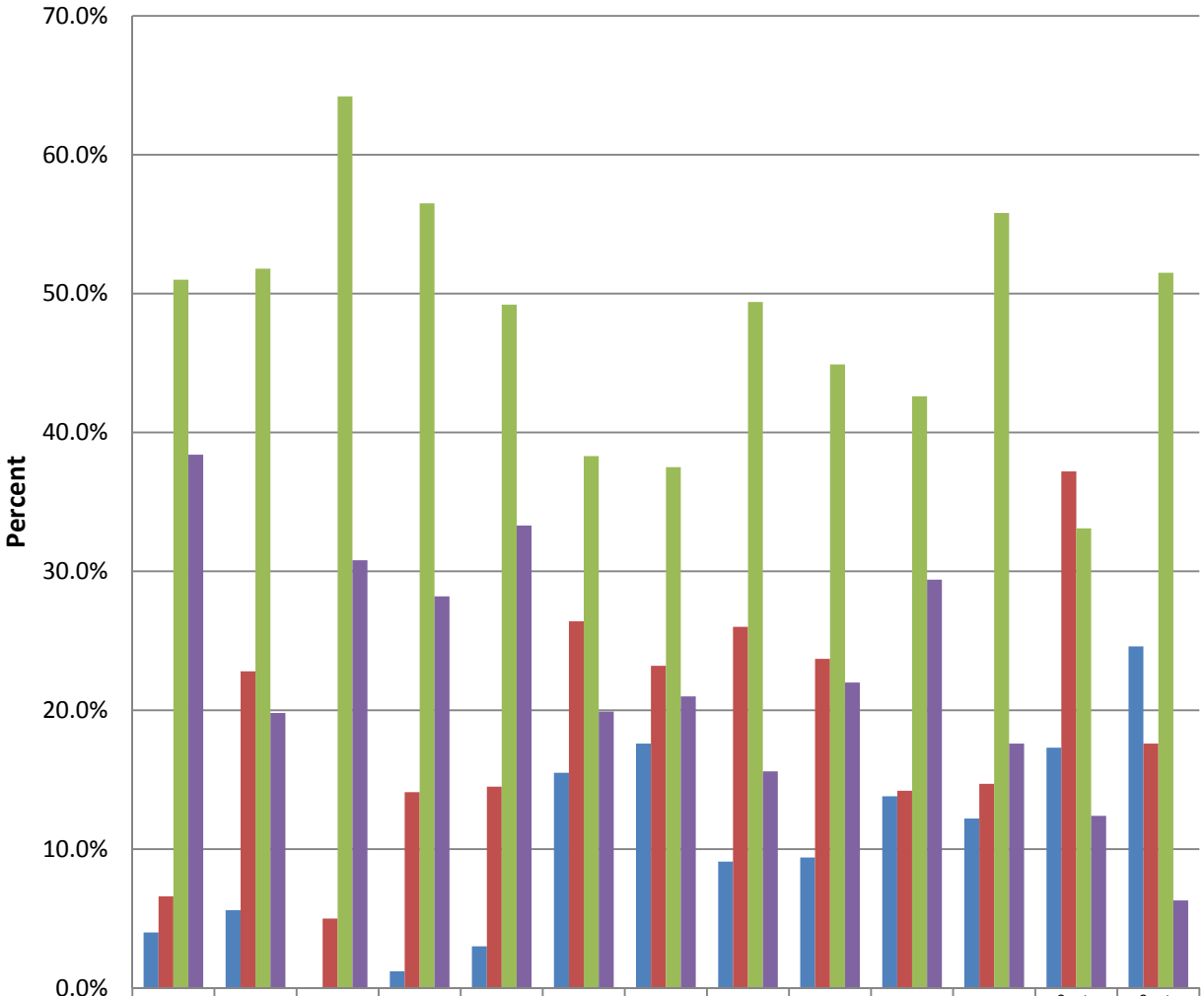
Pre-post self-reported skills improvement ranged from a 2.1 percent increase for typing on a keyboard to a 79.4 percent increase in ability to make a PowerPoint presentation. With the exception of typing on a keyboard, the respondents reported improvements in performing all of the skills. The average improvement was 34.6 percent (Figures 41 and 42).

Figure 41
Self-Assessed Computer Skills Prior to Training
Neighborhood Outreach



	Turn on computer	Type on a keyboard	Point with mouse	Open a window	Open an application	Create a document	Save a document	Open a document	Edit a document	Cut, copy and paste	Print	Create spread sheet	Create Power Point
Not at all	8.0%	11.6%	5.0%	9.7%	23.1%	31.1%	32.2%	32.2%	31.0%	31.6%	21.8%	41.6%	47.0%
With help	8.8%	20.7%	10.0%	9.7%	26.5%	28.6%	27.1%	28.0%	30.2%	27.4%	20.2%	43.4%	36.5%
On own	48.8%	47.9%	54.2%	52.4%	29.1%	22.7%	22.9%	26.3%	23.3%	24.8%	40.3%	8.8%	12.2%
Can teach others	34.4%	19.8%	30.8%	28.2%	21.4%	17.6%	17.8%	13.6%	15.5%	16.2%	17.6%	6.2%	4.3%

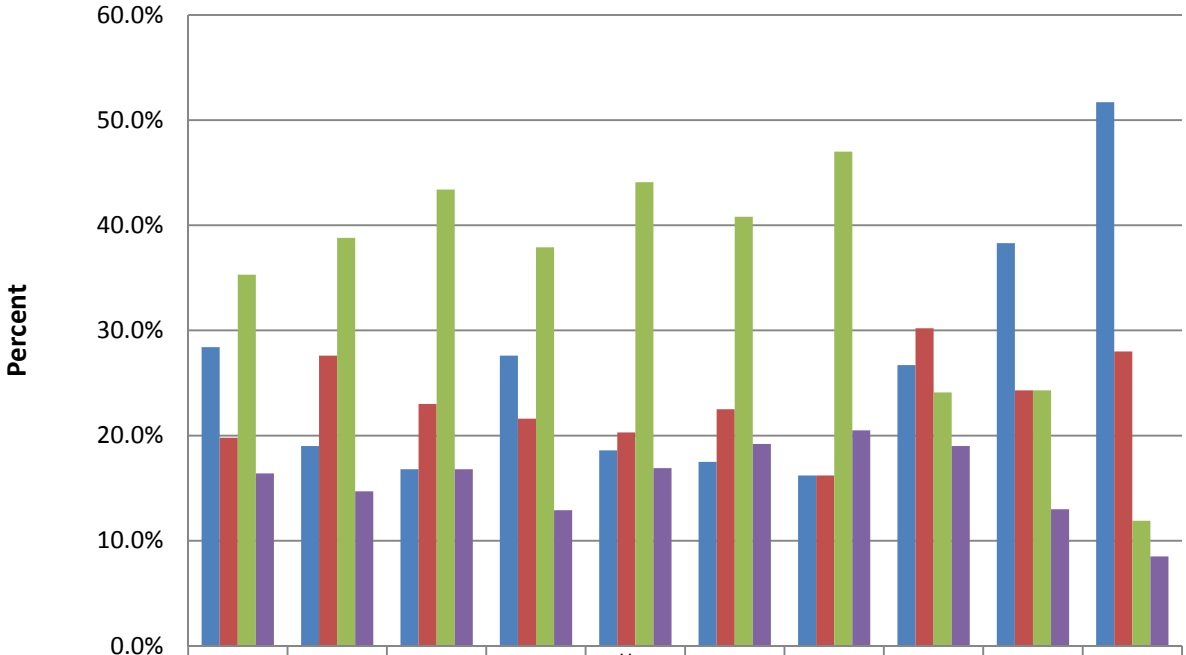
Figure 42
Self-Assessed Computer Skills Six Months After Training
Neighborhood Outreach



	Turn on computer	Type on a keyboard	Point with mouse	Open a window	Open an application	Create a document	Save a document	Open a document	Edit a document	Cut, copy and paste	Print	Create spread sheet	Create Power Point
Not at all	4.0%	5.6%	0.0%	1.2%	3.0%	15.5%	17.6%	9.1%	9.4%	13.8%	12.2%	17.3%	24.6%
With help	6.6%	22.8%	5.0%	14.1%	14.5%	26.4%	23.2%	26.0%	23.7%	14.2%	14.7%	37.2%	17.6%
On own	51.0%	51.8%	64.2%	56.5%	49.2%	38.3%	37.5%	49.4%	44.9%	42.6%	55.8%	33.1%	51.5%
Can teach others	38.4%	19.8%	30.8%	28.2%	33.3%	19.9%	21.0%	15.6%	22.0%	29.4%	17.6%	12.4%	6.3%

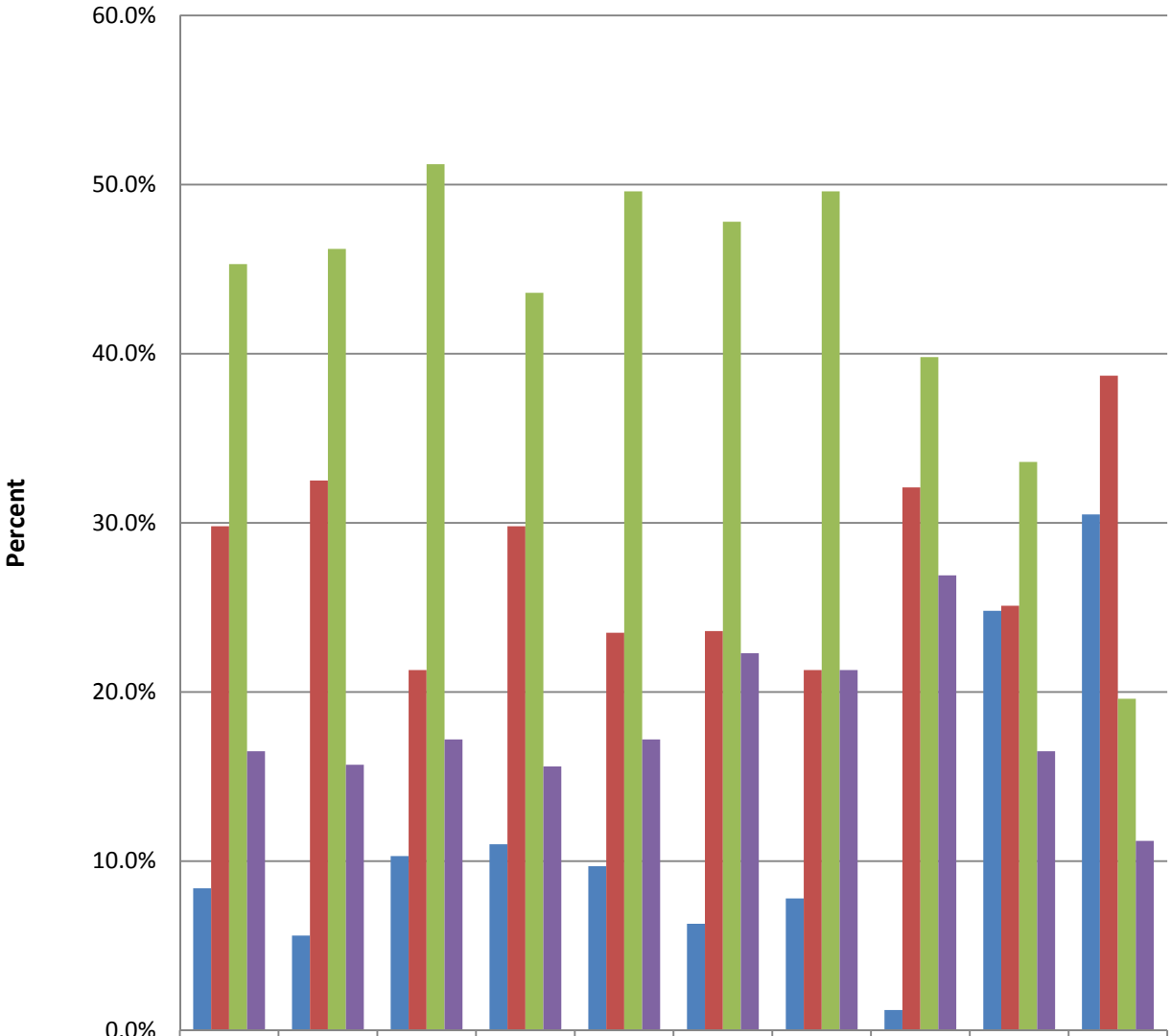
Figures 43 and 44 show program participants' perceptions of their Internet skills just prior to the program and six months after completion of the program. Skill improvements ranged from 1.2 percent for using scroll bars to 49.2 percent for using the Internet to place phone calls. Again, it should be noted that most participants knew how to perform simple computer tasks prior to the beginning of training so the follow-up scores for those tasks show little change. However, the average increase in skill was 22.5 percent which shows significant skill gains from the time participants enrolled in training to the six-month follow up. At least part of these gains are attributable to the training program. By way of contrast, the building residents showed larger average magnitude gains in skills with an average of 36.7. This is most likely due to the fact that the neighborhood residents' skill levels at baseline were higher and therefore less likely to be improved by the program.

Figure 43
Self-Assessed Internet Skills Prior to Training
Neighborhood Outreach



	Enter a URL	Go to Web page	Use scroll bars	Use search engine	Use browser back button	Open an email	Reply to an email	Attache message to email	Use online chat	Use Internet phone
Not at all	28.4%	19.0%	16.8%	27.6%	18.6%	17.5%	16.2%	26.7%	38.3%	51.7%
With help	19.8%	27.6%	23.0%	21.6%	20.3%	22.5%	16.2%	30.2%	24.3%	28.0%
On own	35.3%	38.8%	43.4%	37.9%	44.1%	40.8%	47.0%	24.1%	24.3%	11.9%
Can teach others	16.4%	14.7%	16.8%	12.9%	16.9%	19.2%	20.5%	19.0%	13.0%	8.5%

Figure 44
Self-Assessed Internet Skills Six Months AfterTraining
Neighborhood Outreach

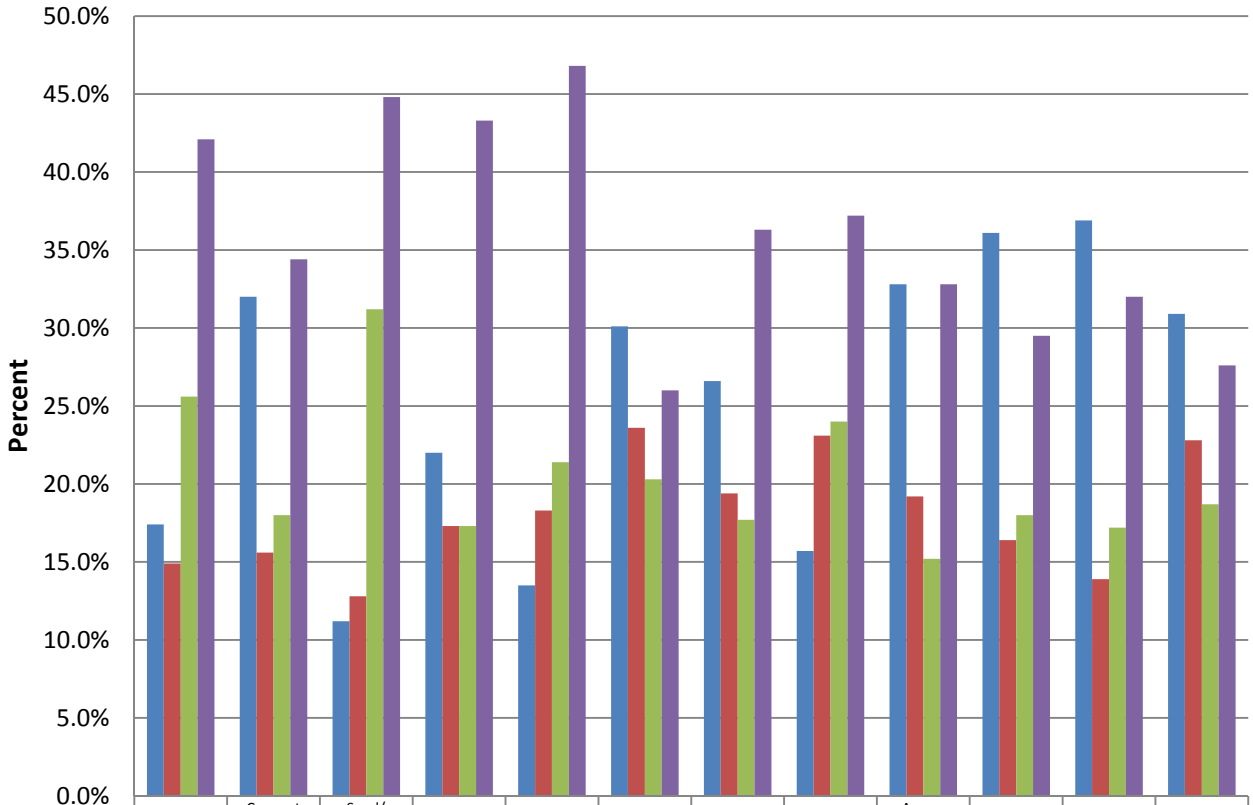


	Enter a URL	Go to Web page	Use scroll bars	Use search engine	Use browser back button	Open an email	Reply to an email	Attache message to email	Use online chat	Use Internet phone
Not at all	8.4%	5.6%	10.3%	11.0%	9.7%	6.3%	7.8%	1.2%	24.8%	30.5%
With help	29.8%	32.5%	21.3%	29.8%	23.5%	23.6%	21.3%	32.1%	25.1%	38.7%
On own	45.3%	46.2%	51.2%	43.6%	49.6%	47.8%	49.6%	39.8%	33.6%	19.6%
Can teach others	16.5%	15.7%	17.2%	15.6%	17.2%	22.3%	21.3%	26.9%	16.5%	11.2%

The average increase in expressed interest in web-based applications for the neighborhood outreach participants was 18.6 percent, with increases for all of the applications. These findings suggest that the efficacy of the computer training program in increasing awareness of the practical benefits of Internet use extended to neighborhood residents outside of the project buildings. This effect was sustained across a broad range of topic areas and applications.

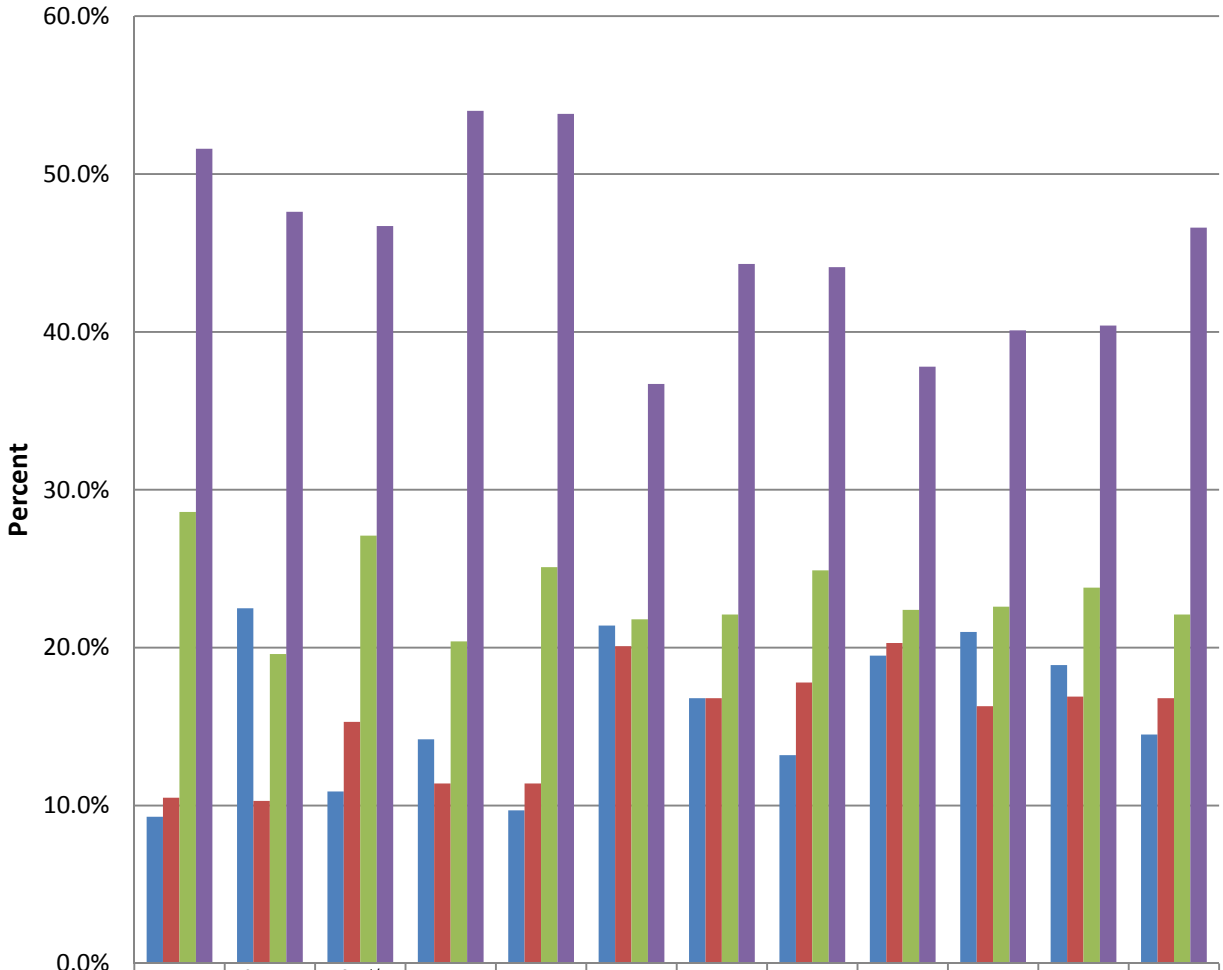
The change in expressed interest in several Internet applications stands out for the neighborhood outreach participants compared to their counterparts who lived in the buildings. More neighborhood outreach participants expressed interest in using the Internet to look for jobs and to find information on starting a business. This may be attributable to the fact that the people who chose to participate in the training program through neighborhood outreach were significantly younger and more likely to be free of disabilities.

Figure 45
Interest in Web-based Applications Prior to Training
Neighborhood Outreach



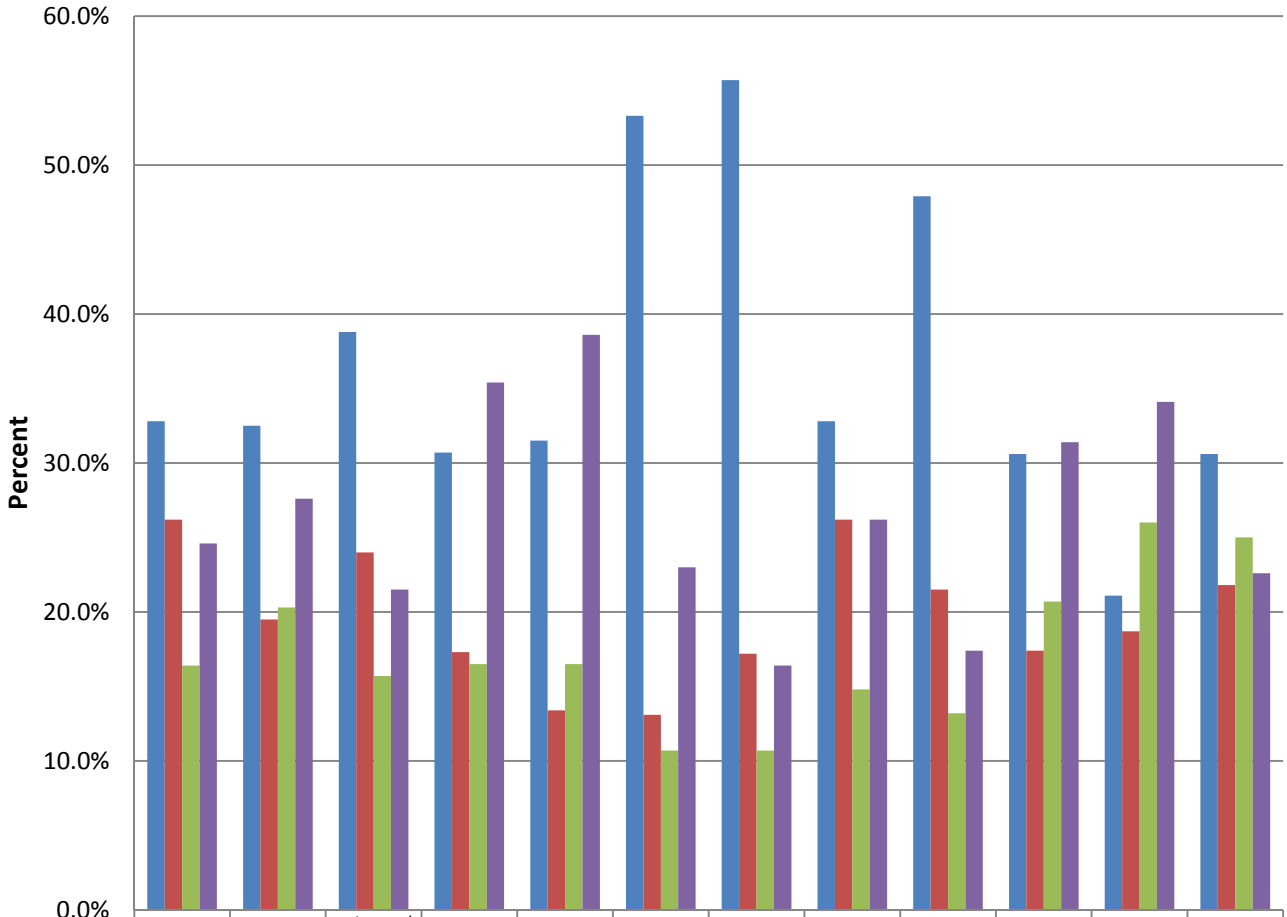
	Get email account	Connect with relatives	Send/ receive email	Share photos	Web search	Internet Video	Download music	View news	Access public programs	Genealogy	Health care information	Online gaming
None	17.4%	32.0%	11.2%	22.0%	13.5%	30.1%	26.6%	15.7%	32.8%	36.1%	36.9%	30.9%
Little	14.9%	15.6%	12.8%	17.3%	18.3%	23.6%	19.4%	23.1%	19.2%	16.4%	13.9%	22.8%
Moderate	25.6%	18.0%	31.2%	17.3%	21.4%	20.3%	17.7%	24.0%	15.2%	18.0%	17.2%	18.7%
Great	42.1%	34.4%	44.8%	43.3%	46.8%	26.0%	36.3%	37.2%	32.8%	29.5%	32.0%	27.6%

Figure 46
Interest in Web-based Applications Six Months After Training
Neighborhood Outreach



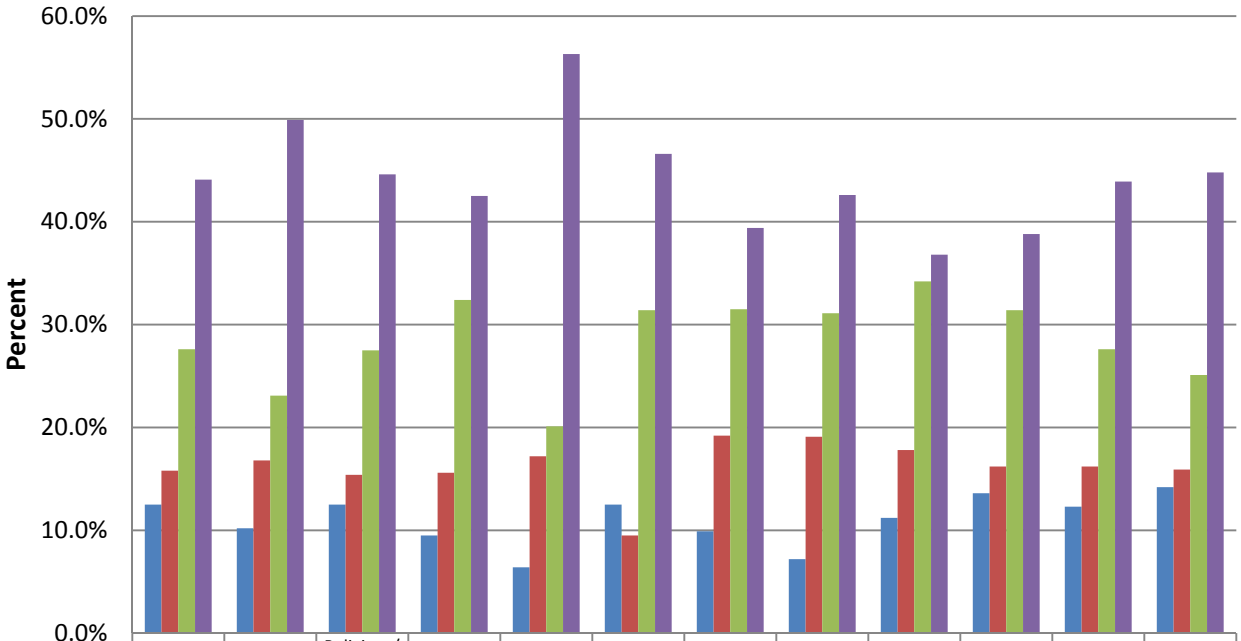
	Get email account	Connect with relatives	Send/ receive email	Share photos	Web search	Internet Video	Download music	View news	Access public programs	Genealogy	Health care information	Online gaming
None	9.3%	22.5%	10.9%	14.2%	9.7%	21.4%	16.8%	13.2%	19.5%	21.0%	18.9%	14.5%
Little	10.5%	10.3%	15.3%	11.4%	11.4%	20.1%	16.8%	17.8%	20.3%	16.3%	16.9%	16.8%
Moderate	28.6%	19.6%	27.1%	20.4%	25.1%	21.8%	22.1%	24.9%	22.4%	22.6%	23.8%	22.1%
Great	51.6%	47.6%	46.7%	54.0%	53.8%	36.7%	44.3%	44.1%	37.8%	40.1%	40.4%	46.6%

Figure 47
Interest in Additional Web-based Applications Prior to Training
Neighborhood Outreach



	Online shopping	Online banking, bill paying	Religious/ Faith-based activities	Online training/ Education	Look for jobs	Start a business	Be politically active	Hobbies/ Interest groups	Write "my life' memoirs	Poto album	Facebook	Meet people
None	32.8%	32.5%	38.8%	30.7%	31.5%	53.3%	55.7%	32.8%	47.9%	30.6%	21.1%	30.6%
Little	26.2%	19.5%	24.0%	17.3%	13.4%	13.1%	17.2%	26.2%	21.5%	17.4%	18.7%	21.8%
Moderate	16.4%	20.3%	15.7%	16.5%	16.5%	10.7%	10.7%	14.8%	13.2%	20.7%	26.0%	25.0%
Great	24.6%	27.6%	21.5%	35.4%	38.6%	23.0%	16.4%	26.2%	17.4%	31.4%	34.1%	22.6%

Figure 48
Interest in Additional Web-based Applications Six Months After Training
Neighborhood Outreach

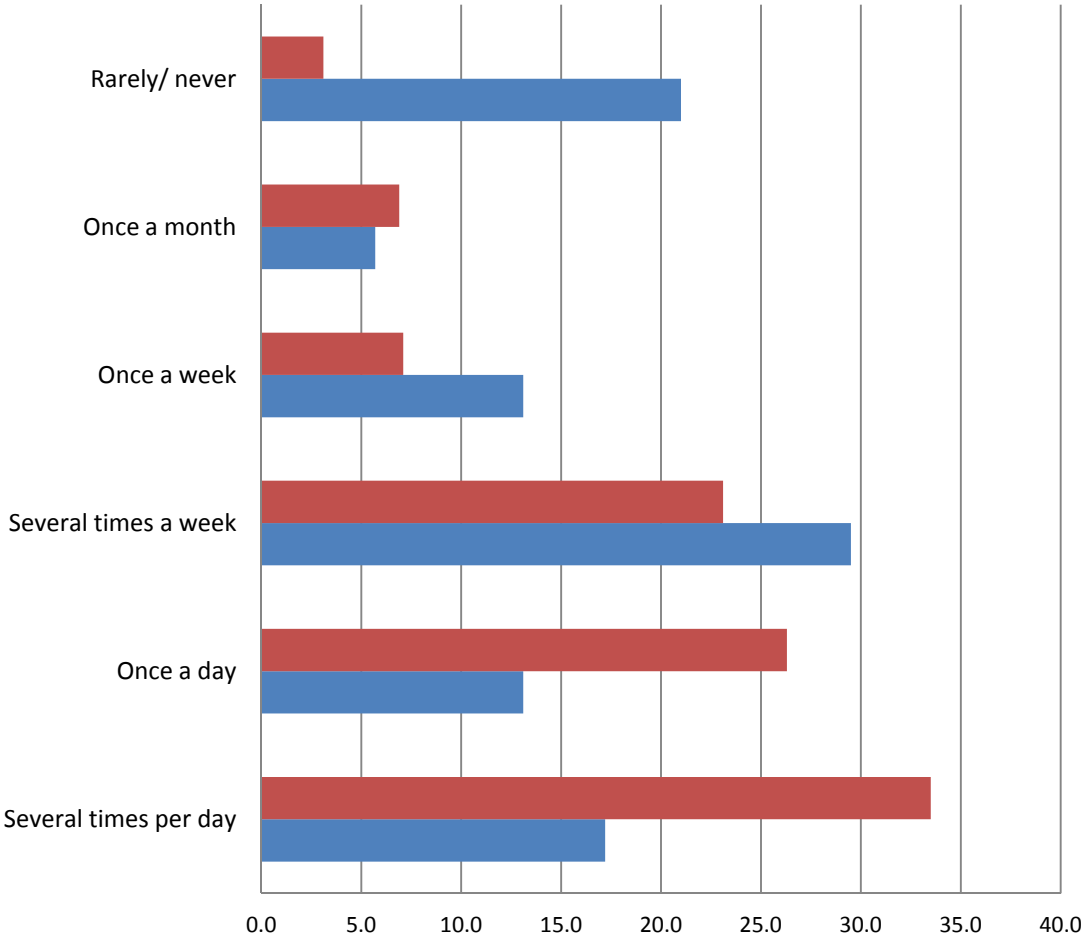


	Online shopping	Online banking, bill paying	Religious/ Faith-based activities	Online training/ Education	Look for jobs	Start a business	Engage in politics	Hobbies/ Interest groups	Write "my life' memoirs	Poto album	Facebook	Meet people
None	12.5%	10.2%	12.5%	9.5%	6.4%	12.5%	9.9%	7.2%	11.2%	13.6%	12.3%	14.2%
Little	15.8%	16.8%	15.4%	15.6%	17.2%	9.5%	19.2%	19.1%	17.8%	16.2%	16.2%	15.9%
Moderate	27.6%	23.1%	27.5%	32.4%	20.1%	31.4%	31.5%	31.1%	34.2%	31.4%	27.6%	25.1%
Great	44.1%	49.9%	44.6%	42.5%	56.3%	46.6%	39.4%	42.6%	36.8%	38.8%	43.9%	44.8%

An important finding of this project is the degree to which the respondents indicated interest in the Internet as a way to find jobs. This finding held true for both major types of respondents. Building residents indicating “great” interest in using the Internet to look for jobs increased from 34.6 to 51.0 percent, and the percentage of neighborhood outreach participants expressing “great” interest in doing so jumped from 38.6 to 56.3 percent.

Figure 49 shows the frequency of Internet use brought about by the training program for neighborhood outreach participants. The percent of people who reported accessing the Internet "rarely" or "never" decreased from 21.0 percent to 3.1 percent. The proportion of people who used the Internet several times each day went up from 17.2 to 33.5 percent.

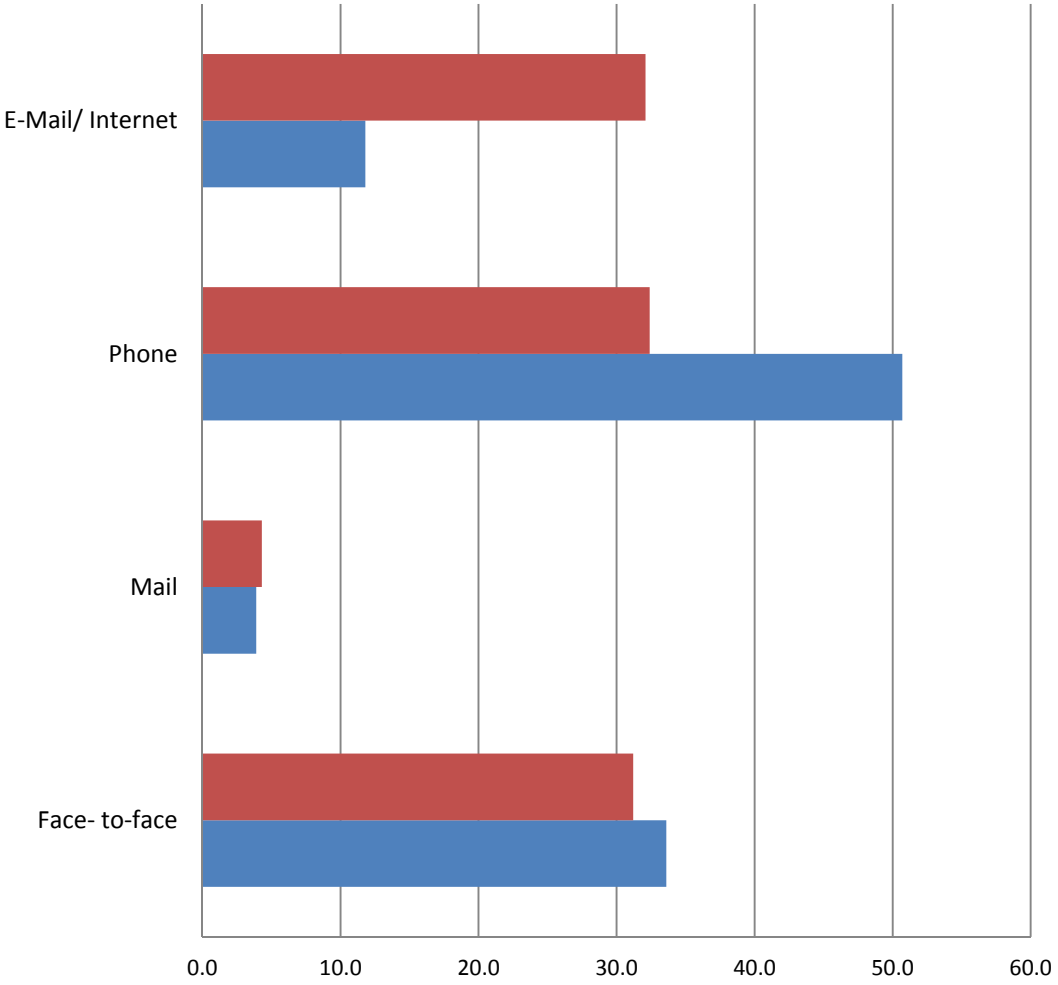
Figure 49
How Often Do You Use the Internet?
Pre/Post
Neighborhood Outreach



	Several times per day	Once a day	Several times a week	Once a week	Once a month	Rarely/ never
Percent post	33.5	26.3	23.1	7.1	6.9	3.1
Perecnt pre	17.2	13.1	29.5	13.1	5.7	21.0

Figure 50 shows that as neighborhood outreach participants' email contact with relatives increased (from11.8 percent to 32.1 percent) their use of the telephone decreased (from 50.7 percent to 32.4 percent). A similar pattern is evident with contact with friends (Figure 51).

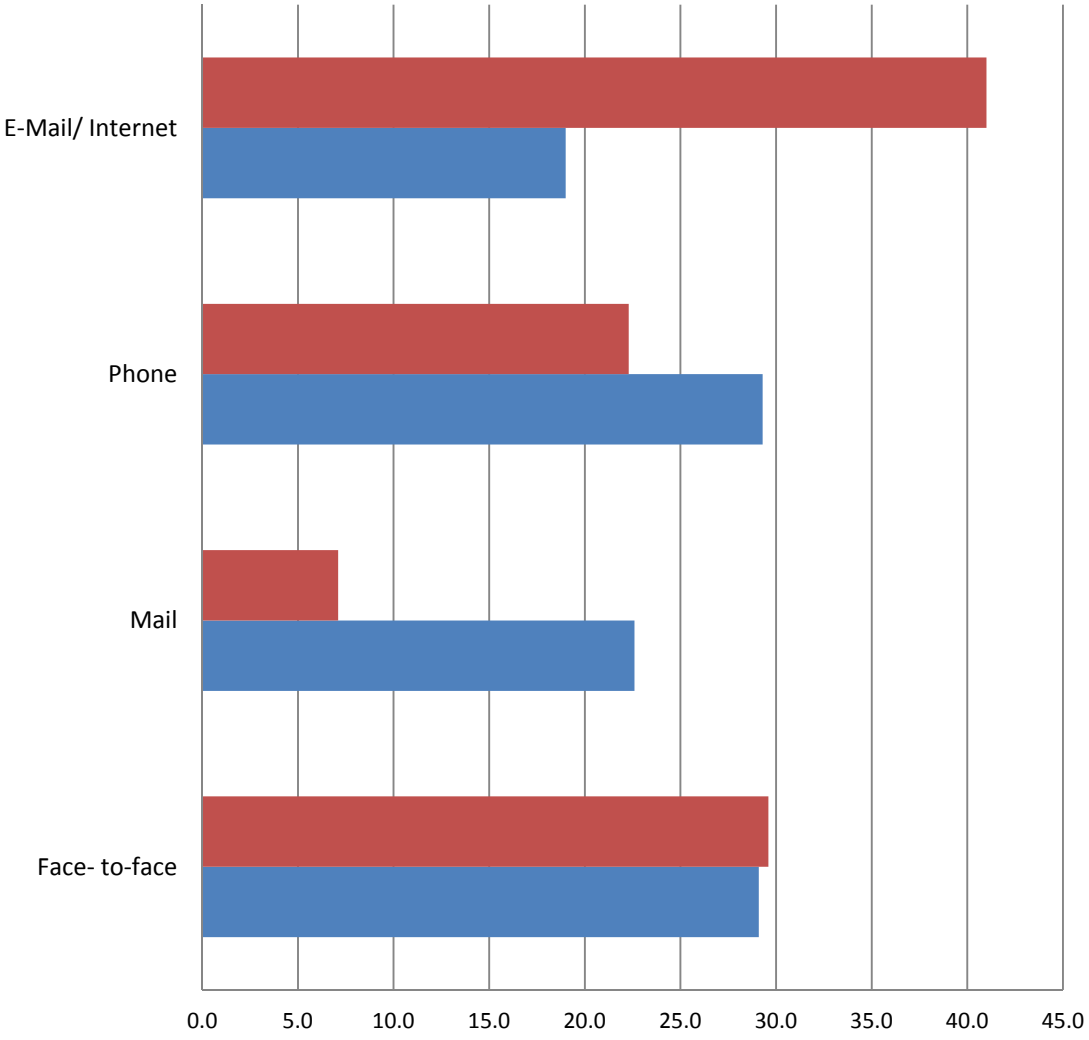
Figure 50
How Do You Stay in Touch with Relatives?
Pre/Post
Neighborhood Outreach



	Face- to-face	Mail	Phone	E-Mail/ Internet
Percent post	31.2	4.3	32.4	32.1
Perecnt pre	33.6	3.9	50.7	11.8

Figure 51 shows differences in the way that neighborhood outreach respondents stayed in touch with friends prior to and after the training program. The use of the Internet increased dramatically from 19.0 percent to 41.0 percent while the use of the telephone and mail went down considerably.

Figure 51
How Do You Stay in Touch with Friends?
Pre/Post
Neighborhood Outreach



	Face- to-face	Mail	Phone	E-Mail/ Internet
Percent post	29.6	7.1	22.3	41.0
Perecnt pre	29.1	22.6	29.3	19.0

The response frequency to the questions of the Lubben Social Network Scale (LSNS) revealed that program participants reported greater contact with friends and relatives. The table below shows that the average Lubben score of 15.27 prior to training increased by 4.59 points to 19.87 at six-month follow-up. This change is statistically significant, meaning that the observed difference did not occur due to random fluctuation. The results from the LSNS for neighborhood outreach participants are given below.

Table 10
Lubben Social Network Scale
Neighborhood Outreach

		How many relatives (friends) do you . . .	None	1	2	3-4	5-8	9+
Pre	Relatives	see or hear from at least once a month?	8.8	8.0	19.2	30.4	15.2	18.4
		feel at ease with that you can talk about private matters?	16.8	13.6	24.0	28.0	8.8	8.8
		feel close to such that you could call on them for help?	8.1	17.1	30.9	27.6	10.6	5.7
	Friends	see or hear from at least once a month?	3.2	10.5	21.0	29.8	12.1	23.4
		feel at ease with that you can talk about private matters?	16.1	16.9	29.0	28.2	4.8	4.8
		feel close to such that you could call on them for help?	9.5	20.6	31.7	27.0	6.3	4.8
Post	Relatives	see or hear from at least once a month?	7.1	8.2	20.3	31.5	16.5	16.4
		feel at ease with that you can talk about private matters?	10.2	12.5	27.5	29.3	10.1	10.5
		feel close to such that you could call on them for help?	6.0	16.8	31.2	30.2	11.5	4.3
	Friends	see or hear from at least once a month?	2.1	8.5	21.3	30.1	15.0	23.4
		feel at ease with that you can talk about private matters?	11.2	12.6	28.5	31.2	11.3	5.2
		feel close to such that you could call on them for help?	6.3	16.2	30.2	32.5	10.2	4.6

Paired Samples *t*-test

	Mean	S.D.	S.E. Mean
Prior to Training	15.27	6.43	.338
6-Month Follow-up	19.87	6.44	.339
Difference	4.59	.22	.011

t=-406.68; d.f.=359; *p*=.000

Finding 25: Of the neighborhood outreach participants in the training program, 89.6 percent had experience using computers, 85.8 percent had experience using the Internet, 43.1 percent had a computer at home, and 41.2 percent had Internet access.

Finding 26: Cost was the most commonly identified barrier to computer and Internet access among neighborhood outreach participants enrolling in the training program.

Finding 27: Neighborhood outreach participants indicated large gains in computer and Internet skill levels resulting from the training program. The skill gains were particularly large for more advanced skills.

Finding 28: Neighborhood outreach participants expressed greatly increased interest in Internet applications, particularly applications that make it possible to get or keep a job and to start a business. The training program increased participants' interest in a wide range of Internet applications.

Finding 29: Neighborhood outreach participants' level of social participation increased after completing the training program.

Table 11
Summary of Pre-Post Results
Interest in Web-Based Applications
(Percent Indicating "Great Interest")

	Building Residents		Building Residents (60+ years old)		Outreach	
Web-based Application	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**
Get email account	47.1	52.3	42.0	54.2	42.1	51.6
Connect with relatives	45.0	46.9	57.7	55.1	34.4	47.6
Send/ receive email	45.0	46.4	51.9	53.2	44.8	46.7
Share photos	48.9	52.1	46.0	60.8	43.3	54.0
Web search	55.9	56.1	54.5	61.2	46.8	53.8
Internet Video	30.2	35.2	25.5	35.2	26.0	36.7
Download music	41.1	44.7	32.7	27.5	36.3	44.3
View news	44.6	46.3	45.4	51.4	37.2	44.1
Access public programs	36.0	39.5	26.3	55.0	32.8	37.8
Genealogy	39.0	40.2	33.0	55.0	29.5	40.1
Health care information	38.2	39.9	38.3	53.3	32.0	40.4
Online gaming	42.6	47.8	39.0	49.7	27.6	46.6
Online shopping	32.0	44.0	24.7	40.5	24.6	44.1
Online banking, bill paying	30.4	51.3	24.0	58.9	27.6	49.9
Religious/ Faith-based activities	27.4	48.2	21.9	50.2	21.5	44.6
Online training/Education	37.2	45.2	24.5	35.1	35.4	42.5
Look for jobs	34.3	51.0	12.9	36.6	38.6	56.3
Start a business	21.2	45.2	7.4	27.0	23.0	46.6
Be politically active	17.1	43.5	12.6	52.9	16.4	39.4
Hobbies/ Interest groups	30.5	42.3	23.2	42.6	26.2	42.6
Write "my life' memoirs	19.7	36.5	9.5	40.1	17.4	36.8
Photo album	34.4	42.3	22.7	40.4	31.4	38.8
Facebook	39.8	41.3	31.0	47.8	34.1	43.9
Meet people	29.2	44.3	17.3	41.4	22.6	44.8

LIST OF ACRONYMS & TERMS

ADA – Americans with Disabilities Act of 1990, federal legislation that prohibits a range of discrimination based on disability.

Ambassador - Resident of project facilities who assist CPMs with CLASP delivery.

ARRA - The American Recovery and Reinvestment Act of 2009, popularly known as the economic stimulus program, and source of federal funding for the project.

Backpack - A web-based information storage and retrieval system used by Connected Living, Inc. to support company activities and management processes. Backpack is also used to provide access to key documents for CPMs and others involved in program delivery.

BTOP - The Broadband Technology Opportunity Program administered by the United States Department of Commerce, National Telecommunications and Information Administration, through which this project was funded.

BTOP Survey of Computer and Internet Use – Seven page survey developed and pilot tested by the evaluation team to serve as the primary measure of program outcomes.

CLASP - Connected Living Adoption and Sustainability Program, the computer and Internet adoption model used for this project.

CLC - Computer Learning Center.

CLIP - Connected Living Internet Portal, the simplified and adapted proprietary Internet portal developed by Connected Living that is used in CLASP.

Coalition - See Illinois Senior Internet Adoption Coalition.

Community Program Manager - Connected Living employee assigned to each project building to serve as the primary service and training deliverer of CLASP.

Connected Living - A Quincy, Massachusetts based company that provides technology adoption programs for seniors. Connected Living is the BTOP grant recipient and project administrator.

CPM - See Community Program Manager.

DSSA Strategies, Inc. - Co-author of the grant that funded the project and project partner with responsibilities that include coordinating the market research, evaluation, and information dissemination activities.

External Outreach - Activities undertaken by Connected Living to encourage people served by various community based organizations and programs to participate in components of CLASP.

Formative Evaluation - A method of program evaluation that focuses on what is and is not working while a program is forming.

HUD - United States Department of Housing and Urban Development.

Illinois Senior Internet Adoption Coalition ("The Coalition") - A group of local housing authorities and private owners of Section 8 and low income housing facilities located across northern Illinois whose facilities serve as sites for this project.

Influencer - A well-known and trusted building resident who is recruited to support the project and assist in project implementation and recruitment. This role may be formal or informal.

Lubben Social Network Scale (LSNS-6) – a standardized questionnaire-based measure of social isolation embedded in the BTOP Survey of Computer and Internet Use.

Neighborhood Outreach – describes activities undertaken by Connected Living to encourage people living in the neighborhoods around the program buildings to participate in CLASP and enroll in computer training.

NIU - Northern Illinois University, home institution of the evaluation team.

NTIA - National Telecommunications and Information Administration, an agency of the United States Department of Commerce and recipient of ARRA funds used for BTOP projects across the U.S.

Paired Samples *t*-test - A *t*-test is a statistical test used to compute the difference between two similarly measured variables to see if the average is significantly different from zero.

Regional Community Program Manager - Connected Living employee assigned to groups of geographically proximate project buildings to train and oversee program volunteers and to conduct outreach activities.

RUS - Rural Utility Service, a program of the U.S. Department of Agriculture that extends loans and grants to projects that bring broadband service to rural areas.

SBA - Sustainable Broadband Adoption, one of three focal areas of the BTOP program that is designed to increase Internet and broadband usage and adoption for vulnerable populations.

Section 8 - A federal program administered by the U.S. Department of Housing and Urban Development that provides rental assistance and vouchers to private landlords for people in low-income housing.

Summative Evaluation - A method of program evaluation that judges the worth of a program at the end of the program activities and focuses on program outcomes.

LIST OF TABLES AND FIGURES

Tables

Figures